D. Swinney — Philadelphia Nov. 7. 1808 1.

Notes on Dr. Rushes Lectures

Introductory Lecture

Welcome to this Anniversary —

The Subject of this Lecture is not an Ordinary One —

It is the Duty of Patients to their Physicians —

1. They should not choose one who had not a Regular Education —

Empirics may sometimes cure their Patients but it is not owing to their Skill but merely to Chance —

2. They should choose a man of Talents. A man with a small portion of Genius may by the Force of Memory retain some nostrums which may cure common Cases but sometimes an extraordinary case may occur which would reduce even a Genius to his wits end almost —

3. They should prefer a man of regular Habits. When he is not visiting patients he should be in his Study or by his fire side —

4. A man of sober & moral Character should be preferred to one who is intemperate or immoral. Intemperance may be the cause why improper medicines are administered. A pious Christian may by his tender & humane conduct contribute to the Comfort of one in distress —

5. When they have determined upon one Physician they should put such Confidence in him as to follow his Prescriptions —

These are the general Duties of Patients towards their Physicians I shall now come to more particular ones. —

1. They ought to apply to their Family Physician in cases of a trivial nature & in so doing may avoid a severe fit of sickness & save much of their Property

2. Apply early in violent Cases or their Physician may come to late to render service.

3. Be faithful in disclosing the Causes of Diseases; whether Debt, Love, Guilt, Intemperance, passions or whatever they may be. Dr. Tissot gives a case of Malice wherein the Person could enjoy no comfort in anything. Delicacy should not prevent Females. He had known from this Source a Cancer endin Death.

He had known a psoas Abscess cast in Death from Concealment. It was not discovered 3
that the Lady had it untill two Days before her Death & then by the disagreeable Smell. Although they are faithful they should not croud too many Causes together —

4. Never obtrude Family Concerns unless there is a real Occasion for it, as it may take up so much of the Physician's Time, and likewise prevent him from coming as often as he would like to.

5. They aught to follow the Physician's Prescriptions with the utmost fidelity. Their Obedience should be strict, punctual and universal. He gave it as his Opinion that if the Causes of the Death of Persons were inserted in the Epitaph & and engraven on their Tombstones it would induce others to be more faithful. Then in viewing the Repositories of the Dead an Inscription to this effect might be observed; Here lies A. B. who died because in a pulmonary Consumption he refused the Expence of two or three times bloodletting —

A second would read thus; In Memory of C D who died because he refused to undergo a moderate course of Mercury — Another wold surprise the mind in the following words. Sacred to the Memory of Miss G E who died of a Phthisis pulmonalis ~~because she went to the~~ ~~the~~ who received a Catarrh in attending the Theatre in the Cold month of January in a thin Summer Dress —

6. Never Take medicine without the advice of the Physician. By attending to this they will escape many Dangers resulting from Improper use of Medicine

7. Never take the advice nor even question another Physician, if by accident they see him, when they have one engaged — For though they might both cure the same person in the same complaint at different Times yet their practice would be somewhat different; & both prescribing at the same time do more hurt than good —

8. Never send for a consulting Physician without the Consent of the Family one, For they may be opposite in their System or may be at Variance —

Lastly. If a Patient dismisses his Physician he should inform him of the Reason. He may if he has given offence make proper acknowledgements; or at least do better in future. 5

Minor Duties.

1. Send for a Physician in the Morning.
2. Not call a Physician from his meals.

The Physician among the Spaniards lock their Doors when they sit down to meals If a Master in Italy call for his Servant it is enough for him to say "I am at Table".

3. When a Physician is sent for be always ready to receive him.

Dr. Fothergill being desired to attend a Lady of Rank in London the next morning at 10 o'Clock, came punctually at the hour but her Ladyship was breakfasting & desired the Dr. to tarry in the sitting-Room untill she was done. He immediately left the house. She was offended. However she sent for him again. he ordered the messenger to inform his mistress where he lived, also he would be in a State of readiness to receive he any morning

between 8 & 9 o'Clock. Sometime after this she waited on the Dr. but he made no apologies for his supposed insulting Conduct & he prescribed for her & she went away apparently reconciled to him again —

4. If a Physician enter fatigued he should be refreshed - but take care of ardent Spirits - If he enter cold he should have opportunity of warming himself before he enter the Patients room — If he be wet he should be accommodated with some way to dry himself -

Duties after Recovery —

1. A Patient ought to speak well of his Physician.

2. He should reward him for his Services The Physician undergoes a great Deal for his Patients.

The Christian engaged in other accupations has Sunday to worship God publicly -

The Mechanic, the Farmer, the Merchant have the night to refresh themselves and rest in but the Physician must ride Day or night if called upon & enjoy little respite. —

Finally

1. They ought to pay punctually either when Physician has cured the Case or at least at the expiration of every year —

2. Letters sent to a Physician for advice should inclose a fee — Also the postage should be paid on Letters from a Distance.

3. The Compensation for Consultation ought to be greater than common Cases.

4. If Patients are not able to pay us we expect them to Tell us so —

5. If a Person has been reduced from Opulence to Indigence we expect to attend them freely and they ought not to suffer but inform the Physician though he be unable to remunerate him for his Services —

Taken from 12 to 1 o'Clock —

Lecture 2d. Nov. 9. 1808

It is my Province in this Room to teach the Institutes of Medicine. I shall consider them under the three following heads viz.

1. Physiology which treats of the healthy State of the human Body.
2. Pathology which treats of the diseased State — and
3. Therapeutics which treats of the Cure of Diseases.

I shall apply the practice to the cure of particular Diseases — and shall take occasion in the course of my future lectures to illustrate this from Cases that occur in the Pennsylvania Hospital.

In the University of Edinburgh these three branches were lectured upon by three different Professors. But I chuse rather to combine them

for two different Reason viz:

1. They are taught upon the same principles -

2. By this means the Expence is lessened ——

Students by referring to my six published Introductory Lectures & the Sylabus therein may avail themselves of something of my plan -

It is a very common thing to *descry Theory - This is the Case in other professions as well as in that of Medicine -

*There are many dis not descry any meaning in Theory.

Medicine may properly be compared to a Tripod or three legged stool. the 3 legs of which are 1. Observation. 2, Experience, 3. Theory. If the Sytem of Medicine be deprived of either of these it will become useless ——

There are ten *false facts for want of Theory to one founded on Theory -

* What is a false fact.

Those who Divide Theory from practice act like those who separate Morality from Religion.—

There is no man however ignorant but acts from some kind of Theory.

The Mind is always active and consequently must think and "To think," says Dr. Darwin, "is to theorize."—

A man may accustom himself to write sometimes in verse, & sometimes in prose without previously having studied any system but yet he has a Theory in his mind

I would advise a habit of Theorising. There have been vast improvements made within 40 years in the Art of Medicine, which may be set to the Account of Theory —

Practice founded merely on facts is no more than to say that bricks in a yard are a house —

Duty & Inclination lead me to examine into the nature of Theories. So long as God shall spare my life & health I am resolved to theorise

There are some erroneous theories you should guard against adopting

Lentor & spasm are said to be the Cause of fever but it is evident they are the Effects of it.

Dr. Brown ascribes fever to Debility These may be called false facts for it is now known that fever is occasioned by the Morbid & preternatural action of the Blood —

The Inability to cure some Diseases proves only the Imperfection of Medicine —

Bring this to a level with other arts Ignorance or Carelessness in the Master of a Ship does not prove that the Art of Navigation is inadequate

There are three modes of gaining Instruction — viz.

1. By attention to Books
2. By hearing Lectures
3. By attention to sick People —

In this way he will become acquainted with the practice of Physick —

1. By Attention to Books —

Read books upon Diseases as they occur.

There are some things which are necessary to be known that are not in books.

A moist tongue in a pulmonary Consumption, is an observation which I never saw in a book, but is a circumstance which never fails to occur —

2. Knowledge gain'd by hearing is better than by Reading —

To profit by the Lectures, observe

1. To be attentive
2. To take Notes
3. To attend Lectures from few Professors —
4. Talk over what you hear & by this means you can ascertain whether you have gained any new Ideas —

If a ations appear Dark or
any ure I shall feel a plea-
sure rating if called upon
at house

B. ick People
A e said Mania is with
out t this is a false fact-
1. a side of the sick you may
desc atoms which cannot be
2. s
3. a nbinations of Diseases-
4. p rrors of writers-
5. h here they have exagerated-
6. r ur disagreeable feelings-
durable impressions-
A m
witho s well learn to swim
could to the water a man
fully iractice physic succes-
ttending the sick
For to be more succesful
it is necessary that he should
1. visit his patients every Day and
keep an exact account of the Diseases-

The Stomach is commonly Symptomatic
1. to the disorders of the Thorax
2. with viscera of the Abdomen
3. abdominal viscera - 1. Intestines - 2. others
4. with the extremities - & the Body
5. with the whole surface of the Body

There are three [illegible] gaining
Instruction — viz.
1. By attention to [illegible]
2. By hearing Le[illegible]
3. By attention to [illegible] le —
In this way he will be [illegible] inted with
the practice of Phy[illegible]
1. By Attention to [illegible]
Read books upon D[illegible] they accur.
There are some thi[illegible] are ne-
cessary to be known [illegible] in books.
A moist tongue in [illegible] many
Consumption, is an [illegible] which
I never saw in a bo[illegible] a cir-
cumstance which ne[illegible] accur-
2. Knowledge gain[illegible] ing is
better than by Read[illegible]
To profit by the Le[illegible] bserve
1. To be attentive
2. To take Notes
3. To attend Lectures fr[illegible] floors —
4. Talk over what you hear & by this
means you can ascertain whether you
have gained any new Ideas —

Numbers 15. 31. Shoe, Shortation — 2. Reach
John 5. 39 Search ye Scriptures — "Berean
to search is a manly & ingenuous
Exod. 14. Stand ye still — Mix extolled
to contemplative & religious
Genesis — Stir up the gift
Gulardy — Stir up the gift
Heb. 3. in. & [illegible]
ingenuous [illegible]
" [illegible] more [illegible]
engaged [illegible]
ingenuous [illegible]

If any Observations appear Dark or any wise Obscure I shall feel a pleasure in illustrating if called upon at my own house ——

B. Attend sick People

Authors have said Mania is without fever — but this is a false fact —

At the bedside of the sick you may

1. observe symptoms which cannot be described —
2. see the combinations of Diseases —
3. detect the Errors of writers —
4. find out where they have exagerated —
5. wear off your disagreeable feelings —
6. make more durable impressions —

A man could as well learn to swim without going into the water a man could learn to practice physic successfully without attending the sick ——

For a Physician to be more successful it is necessary that he should

1. visit his patients every Day and keep an exact account of the Diseases —

2. Visit them the same hour every Day - & speak encouraging words to them —

3. Give medicine as soon as possible after it is prescribed — —

1. write in a plain hand —

2. inscribe the patients name fairly on the paper that contains Medicine.

- Do not visit early in the morning nor late at night — —

- We should be apothecaries ourselves.

4. attend to common cases.

- for a child to have two heads is uncommon.

- but fevers commonly occur —

5 sit up with his patients.

The night is the best Time to observe the operation of Diseases

In Exacerbations Bleeding — Bark —

6. not decline too soon from attending.

7. not let the hurry of business prevent him.

8. inspire them with hope of Recovery —

9. endeavour to quiet them as possible —

It has been observed by some that "conceit will kill - conceit will cure"

When a Physician is seen sporting

with female complaints it is a sure sign of a bad Physician — 15

— Private practice may be best — But in public practice more uncommon cases occur —

There may be fewer cures in the hospital than private from the three following causes —

1. They are brought in too late

2. Former Intemperance has rendered them incurable — — and

3. They suffer so much from bad air.

Some cases occur in the hospital on which I dont say any thing while by the bed side for two Reasons —

1. to secure from the patient some things he should not know — and

2. that you may take notes —

Taken from 12 to 1. Nov. 9. 1808 —

Lecture 3 — Nov. 10 —

The Manner of Visiting the Sick.

1. Shew Respect & good breeding
2. Delacacy requires that you go upstairs before a Lady
3. If alone always give warning of your approach before you enter the Room —
4. Warm yourself if cold before you feel the pulse — Leave wet clothes out of Room —

In Obtaining an Account of Disease

1. Let patient relate cause of it himself —
2. Let the family tell what they think it is —
3. Enquire of the patient yourself —
   1. The Duration of the Disease
   2. The manner of the Attack
      diseases are often violent from the suddenness of their attack
   3. The remote causes — cold — fatigue
   4. Predisposing causes — age — habit
   5. The habits of previous life — viz: whether given to eating or drinking.
   6. whether — love, Fear, Guilt, Despair or intemperance
   7. In what Country your patient is —
   8. whether such diseases have attacked before & what remedies were used —

q. what Remedies are used in the Family — It would be useful for Parents to record Diseases of their families & the Remedies prescribed, for the use of their Children because Diseases are frequently hereditary.

In ascertaining the proximate cause of the Disease Enquire

1. Into the Seat of it —
2. Into the State of Alimentary Canal. Discover the colour of Stools —
3. Into the State of the urine, whether it be discharged in small quantities or large — whether with pain or without —
4. Into the State of the Skin — whether hot or moist —
5 Into the State of the Appetite —
6. Into the State of Sleep or wakefulness —
7. Into the State of the mind
8. Into the position of patient in Bed.
9. Into the State of the Countenance
10. Into State of the Eye — particularly whether the pupil be dilated or contracted.
11. Into the State of Respiration —
12. Into the State of the Voice —

13. Into the State of the Tongue - whether it be black, white, dry, moist - a dark colour may arrise from the use of Tobacco - or eating Cherries -

14. Into the State of the Nails whether yellow, red or black -

15. above all Into the State of the pulse. always seek a Sign in Bloodvessels - The Pulse is like a Dial plate or the hands of a watch - it points out the seat of Disease ...

It is sometimes called the Nosometer. -

Some attend to one sign & some to another - I reject none but place the most Confidence in the Pulse — Galen is said to have observed it first.

I come now to enquire into the differents States of the Pulse —

I shall observe

1. Its natural State
2. Its morbid State and
3. The Manner judging the morbid State

1. The Natural State of the pulse is commonly between 60 & 80 in minute.

It is frequent, soft, open, free — vigorous.
There are some Circumstances that affect the pulse in a healthy state.

1. Age — In a Subject of a year old it is from 100 to 140 — In one of 2 years from 90 to 100 — In one of 3 y. from 80 to 100 — After 12 years from 60 to 80 — In Old age it is slow & intermittent — It is sometimes known to descend to 42. — Heberden mentions a Case wherein the pulse descended to 26, in a healthy State

2. Sex — It is quicker in Females than men

3. Civilization — The pulse is less frequent in Indians than in people who are Civilized — Indian pulse. 40 — Men who labour have a more frequent.

4. Size — Quicker in low than tall —

5. Emigration. New — 82 — old ~~84~~ 74
New comers — in those more frequent —

6. Climate — slower in cold climate
slower in winter than summer

7. Day — Slower in the morning —
weakest at 7 in the morning
slower in Darkness than Light —

8. Sleep or Wakefulness — slower asleep — (soon after waking at 80 or 90 — soon descends)
9. Position of Body — slowest when on back —
10. Position of Arm — weaker exposed to cold —
11. Eating & Drinking increase it.
12. Conversation & Exercise increase it.
14. Pregnancy — fulness & frequency increas
15. Menstruation — has the same effect.
16. Coughing — increases it also —
17. Suspension of Breath in intense thought — tends to increase
18. Mercury & Blisters — increase also the fullness & Frequency —

It may not be improper here to Mention that the — Opium pulse, the blistering pulse & bark pulse soon pass off —

19. Sudden Fear — reduces the pulse
20. Activity of mind — This may produce a preternatural State of the pulse in a healthy State —

I come next to Speak of

2. The Morbid State of Pulse — This is discovered

1. In the heart & blood vessels —

These may be compared to sensitive plants which when one part is touched the whole is affected by the Operation.

Or to the Bells which were worn by the high Priest - one being shaken they would all ring

2. In the Heart & Arteries -

This may be illustrated by the Bells mentioned - the same kind of motion is communicated to all parts as the same kind of sound was produced by the Bells

3. In Aneurisms which produce a tremor in all parts

The heart & Arteries sympathize in aneurism.

The heart & Arteries opperate on each other

If an Intermission takes place in the heart it does also in the pulse

In some Cases the different parts of the arterial System may not be affected by the motion of heart

This may be ascribed to these causes

1. Want of Irritability in Arteries
2. Suffocated Incitement
3. Disordered State of the Pulse -
4. Large masses of fat intervening & opressing the artery of the Wrist

5. Accidental pressure upon the heart.
6. Diseased state of the Heart.
7. Want of Irritability in contiguous parts.
8. Diseased state of ~~the whole System~~ one part of the Brain
9. The Lungs are insulated —
I would not wish you to rely on any one of these appearance by itself but upon them as they occur collectively —

Friday, Nov. 11. — Lecture 14th —

I come now to take notice of the Deviations of pulse from Order —
1. I shall observe that it deviates
1. In Frequency — which respects the number of pulsations in a minute — which increases sometimes from 60 to 240 and sometimes descends as low as 40 Dr. Rush said he had read of a Case in which there was but 9 Pulsations in a minute.
The morbid Causes of Deviation are
1. Pressure on the Brain. Apoplexy. Hydrocephalus
2. Spasm in the heart.
3. Irritability of the Arteries —
~~2. It departs~~
2. In quickness — which respects the time in which one stroke is performed —
2. It departs from its force with respect to Order and Irregularity — applied to fever.

That I shall first take notice of is
1. A depressed pulse — hardly found at wrist.
1. preternaturally frequent
2. Ditto — slow — 40 — 30
3. Intermission
4. The heart & arteries retain their irritability — perfectly natural
A depressed pulse accurs generally in tremors of the Body — resembles willow tree.
A Depressed pulse differs from a weak one
1. As it accurs in the Beginning of ~~Disease~~ Fever.
2. By a tense stroke — when long felt.
3. By accurring in a morbid ~~state~~ of Brain &c.
4. By accurring before & after Bloodletting
5. By being sometimes accompanied with preternatural slowness or Intermission —
3. There is a distinct, I call a sulky pulse —
4. One full, round, frequent, quick, vigorous, without tension — I call Synochus fortis — this accurs in yellow fevers —
5. One full, frequent, quick, ~~tense~~ tense, not round I call Synocha pulse — In hydrophobia — is hard —
6. One quick, tense, small — This accurs in the Chronic Rheumatism — I call it Synochular —
7. One round, full, soft, frequent without tension I shall call it synochus mitis —

8. One compounded of Synochus & Synocha which I shall call the Synochoid tradquill

9. One frequent with sometimes a round full & tense stroke - I call - Typhoid -

10. One weak small & frequent, not full - not tense - This is the pulse that forbids Bloodletting in malignant fevers

11. One naturally full, round, frequent, so very soft as to fall by the pressure of the fingers this I shall call a gaseous pulse. it imparts sense of emptiness to fingers.

12. One quick & frequent - call hectic -

13. One unequal & fluctuating - call hobbling.

1. It increases from 1 to 2 or 3 strokes
2. It passes from great weakness to great force.
3. From very frequent it becomes very slow.

14. One Double pulse - where one stroke is alternately weaker than the other - the former weaker called Dicrotus - the other Capriscans -

15. One vermicular - from being like a worm -

16. There is a saw like pulse called a creeping - This is attended with Danger ——

I shall next speak of the Morbid Causes of Deviation ——

1. Preture on the Brain -
2. Spasm in the heart
3. Irratability of the Arteries -

17. One serrated from its resemblance to a saw.

Sometimes there is a combination of pulses - Double - Treble and four fold —

In the next place I shall give some Directions for feeling the pulse —

1. Not as soon as you enter the Room but if cold first warm yourself then feel the pulse before you patient tells the Disease — The first feeling of it the most correct —

2. Apply four of your Fingers —

3. In doubtful cases feel both arms —

4. Have the arm free from pressure —

5. Do not feel the pulse after the arm has been exposed to the air but let it first become warm in bed —

Observe the pulse not less than 20 min was the custom of one - another 40 —

6. It may be necessary in some cases to suspend the Sensations of hearing and seeing by stopping the Ears & shutting the Eyes. — Sometimes it is necessary to immerse the hand in warm water —

You should also take off your fingers from the pulse at intervals —

Lecture 5th. Nov. 12. 1808 —

I mentioned that I should have occasion to give you a history of the Diseases as they occur in the Pennsylvania Hospital —

1. a Case of Chronic Rheumatism. in this there was much pain without fever. I prescribed warm Baths, & 15 gr. nitre daily.

2. a Pulmonary Consumption —

Prescription — 1. frequent & small Bleedings.
2. small Doses of laudinum & ether.

3. Diarrhea — Pres. — Chalk galep — purge — Blisters on the Wrists — Bloodletting on the 7th Day — Castor oil on the 9th — Back bandage on the 12th — and Blisters on the wrist — Blisters have an excellent effect in a Diarrhea —

4. Hydrothorax — or Angina pectoris. Precipe — Bloodletting — Blister on the Neck — 1 gr. of squills — and ½ gr. of Opium —

5. Remittent fever — R. washed clean — antimonial powders — Loose Blood — apply Blisters to the wrist — a 2d. bleeding on the 7th Day — patient convalescent —

6. Mania — After the patient was confind in the Cells a few Days a Catarrh

came on which entirely restored the
Reason — Eresipilas appeared on legs —
℞. Bleeding — Blister on the neck —
Leeches and a large Blister
on the 10th laudinum 3 times a day —
and as a stimulant — brandy Toddy —

7. Jacob Davis — a Case of Mania —
℞. 2 gr. calomel every night —

8. Universal Dropsy — or Anasarka —
I ordered 20 oz. of Blood at two Bleedings —
— Purging — Cream of Tartar — Jallop —
On the 12 day 15 gr. of nitre 3 times a day.

9. Rheumatism — ℞. Venesection on
the 9th Day — on 12th 2 gr. opium — and
Blisters on the wrists. —

10. Remittent Fever — ℞. Blister
on the 1st Day — Blisters again on 9th.
antimonial Powder —

11. High State of Mania — A Minister —
℞. 16 oz. of Blood — Blisters on legs —
he is very much restored —

I shall now proceed with Physiology — Perhaps I should not do justice to you if I were not here to observe the Wisdom & Goodness of God in Man's formation

When we take a view of Man we are 1. Struck with his erect posture

2 — — — the Height of his Body —

3 — — — the Symmetry of it —

There may be & are Deviations —

4. — — — Locomotive powers —

5. — — — his mind — he has power of combining Ideas —

I come in the 1st place to consider the Causes of Animal Life —

1. Motion — I choose to make use of the word motion instead of Vibration or Oscillation which some use —

2. Sensation —

3. Thought —

Under the 1st head I shall consider the Different States — of Waking — Sleeping — Childhood — Manhood — Old Age — & Country.

Matter is possessed of the Vis inertia —

Animal Matter is the highest kind — It has { 1. some properties like other matter
2. some peculiar to itself —

I shall attend the 3 following Propositions

1. All parts of the Body are possessed of Sensibility except the hair & nails —

2. Sensibility excited in one part extends its effects to all the other parts —

3. Stimulants are necessary to life —

Some say Life is a forced State —

The Body is not an Automiton —

One has said There is nothing in the mind but what is in the Senses —

Breathing &c — are all the Effect of Stimuli — These may be divided into 1. The External & 2. The Internal

1. The external are

1. Air — The knowledge of this is derived from the Bible — which informs us that God communicated to him animal, intellectual & Spiritual Life —

This Doctrine is inferred from

1. Ezekiel — Dry Bones —
2. Job — Breath of all living —
3. Isaiah —
4. Paul — in his Sermon at Athens —
5. P. 104 — from absence of air —

That Respiration is at first Voluntary may be urged from the following Reasons. 1. Feeling – 2. Sighing – 3 Sneezing – 4. Sleeping — Afterwards it becomes involuntary from habit. The 2.d External cause of animal motion is Light — Subject of next Lecture —

Lecture 5.th Nov. 14th – Monday

2. Light — It is remarked that men were not created untill the mandate was issued – Let there be light," and there was light accordingly –

3. Sound — 4. Odours — 5. Heat – 6. Exercise, Pleasures – which act upon Appetite or Stomach Any thing which opperates on the Faculties of the mind —

Dreams supply the place of Stimuli.

I hope to establish the Doctrine that the mind is inactive in sound Sleep. —

Animal Life is most languid in the morning – most perfect at midday during two or three hours and more languid at evening —

These observations are of use in the Disease called Hypochondria —

How is animal Life supported in sleep? The want of one Stimulus is supplied by

others being more active — This may be.
1. By Heat kept in by the Bedclothes —
2. By Respiration — — — next food —
3. By the stimulous of Urine —
4. By the fullness of the Gall Bladder
5. By the operation of Fecis
6. By partial & irregular understanding of the passions —

Incubus or nightmare is the effect of a languid Circulation — When persons do not wake they are said to die of Incubus.

How is animal Life supported in Infancy? —
How is animal Life supported in Abstinence? Those people who eat & drink but little are supported by the fullness of Gall Bladder —
He referred us to his "Inquiries" to know how it is supported in apparent Death —
In old age it is supported by a Desire of Life. Love of Money, Love of Country Love of Fame —

Air is the Primum Mobile of Life in all animals whether Man or Beast.
Man is made up of Soul and Body The Latter acts upon the Former by Impressions — The former reacts upon the Body —

Animal Life is preserved by the Application of Stimuli to Soul & Body —
Death is induced
1. By abstraction of Stimuli
2. By Excess of them — 3 By Relaxation
4. By an Error in the Fluids
5. By the action of poisonous Exhalations —
6. By Solution of Continuity —
7. Preternatural Rigidity
8.
We think by force as well as live by force. —
This Doctrine of animal Life gives us
1. A new view of the Nervous System —
2. The true means of preserving health & longevity.
3. A knowledge of the Causes of Diseases —
4.
5. The opportunity of rejecting the Doctrine of innate Ideas —
6. That the Origin of human actions is by impressions upon the Will —
7.
8. It further does homage to God — and
9. Rejects the Error of Self Existance in man. —
That God does not govern the world is an impious Idea —

I have had no Doubts of this Doctrine of Animal Life Since I adopted the Belief of it in the Year 1766 —

End of the 6th Lecture —

J. Swinney. Philadelphia Nov. 15. 1808 — Mon.

Notes on Doctor Rushes Lectures No. 9.

On Animal Heat —

Air is the first principle of Life.
Adam was formed cold, Breath produced heat.

1. Inquire into the Origin of Heat —
2. Phenomina of it —
   1. Its equal Temperature —
   2. It is same in all ages.
      Ova of animals best endure cold —
   3. It is the same in both Sexes
   4. It is nearly same in all parts of the Body.

On the Skin from 97 to 98°. On Tongue 98°.
In Urethra 92°. In the Rectum 93½° —

   5. It is increased by Exercise & passions of Mind.
   6. It is one degree less in Sleep than awake —
   7. In certain Diseases several phenomina absent.
   8. It is the same in the Solids as the Fluids —

I. Dr Stephenson says that Animal Heat depends upon Fermentation of the Blood —

Objections

1. There is no Fermentation of the Blood —
2. It is incompatible with health —
3. Putrefaction is not attended with heat —
4. Animals which breathe as we do have the same degree of heat —

II. That The Friction of Blood in Vessels generates Heat —

Objections

1. Friction of the Blood cannot produce heat.
2. To produce heat by Friction one Body must be at Rest —
3. The Blood flows uninterrupted when the Skin is cold, it may be stopped & the part warm —

4. The Velocity of Blood is insufficient —

III. That it Depends upon the actions of pustules.

IIII. Dr. Cullen supposes the Heat of animals to be their vital principle — I dispute it —

Causes of Animal Heat —

1. Combustion — We all carry fire about with us. Lungs the fireplace & Trachea Chimney.

I come to consider Facts —

1. Air is absolutely necessary to Animal Life

No animal exists without it; neither Birds, Fishes, worms, snails, Toads, Insects —

2. Heat is generated by quantity of air consumed.

Some suppose a man to breathe 1 gallon of air in a minute or 14 cubic inches but it is more likely he breathes 3 gallons —

The Red colour of blood derived from air.

3. Heat is derived from aliment —

The heat of Body is about 96°. in common. Trees 2½° colder in summer than the air and 2½° hotter or warmer than the air —

Uses of Heat —

1. It preserves the fluidity of Blood
2. It imparts to us sensibility —
3. It promotes solution of Food in Stomach —

Uses of Respiration —

There is a small portion of nerves in the Lungs — little sensibility & Irritability —

Wounds and abscesses in the Lungs without pain except the pleura is inflamed —

Uses –

1. It is the Cause of Life –
2. It conveys dephlogisticated air to Blood
3. It carries off the unhealthy particles from the Lungs.
4. It propels the Blood through the vessels.
5. It keeps up steady action in
6. It assists the Uterus –
7. It is the means which produces smell –
8. It assists in separating the Blood
9. Air received thus into the blood assists also in the secretion of fluids –
10. probably It serves to convey a certain or limited quantity of air to the Blood

I shall mention a Fact worth notice – Air received in large quantity in to the leg of a Dog proved no way injurious. But when it was admitted into the Femoral Artery it immediately produced a fatal effect –

11. Respiration enables a Child to suck –

Lastly. It assists to form the human voice.

Causes of Respiration

1. Uneasiness not pain in the Breast –
2. Stimulus excited by dephlogisticated air { 1. 2. By the heat it generates –

The End of 7. Lecture –

Lecture 8th Nov. 16th 1808

Cases occurring in Hospital —

1. Diarrhea — ℞. 10 gr. of Ipecacuanha every night
2. Hydrothorax — Salivation —
3. Geo. Brown — Mania — ℞. Tody for Stimulus — depleting Remedies — laudinum 10 gr. every ba
4. Universal Anasarca — bled yesterday — 2 blisters on the wrists — 10 gr. of nitre —

I come now to Uses of Respiration — These mentioned in former Lecture —

Speech distinguishes man from other animals —

1. No Speech without voluntary Respiration
2. Speech is imitative —

A cross child will learn to speak in less time than another — Common in 18 months

Lecture 9th. Nov. 17. Thursday —

There are 40 thousand words in the English Language

Men are superior to beasts because they can express their thoughts by Speech — Speech is the Result of Reasoning —

It is supposed that Adam learned to talk in about two hours

I come next to speak of the Circulation of the Blood

Here I shall enquire concerning
1. The Course of the Blood —
2. The Structure of the Heart & Arteries —
3. The Powers that move the Blood — &
4. The Advantages of motion in the Blood —
There are near 5000 pulsations in an hour.
In Testatia there is but one cavity in the heart.
The Heart has a great degree of Stimulability — The right ventricle of the heart in Beasts is the longer —
The heart is not so sensible as irritable —
The left Ventricle is larger in Americans than Europeans. —
The heart & Arteries pulsate at once —
The Curvatures of Arteries are Stronger than other Parts —

Powers that move the Blood
1. Heart — There is something called the vis incita — It is probable that the Blood stimulates the heart specifically —
The Influx from the Brain incites heart.
In a human body of ordinary size there is considered to be 25 pounds of Blood —
I have known in the Radial Artery 100 pulsations on one arm — at heart 90 and the other arm to retain its ordinary stroke.
Uses of Circulation — 1. To support action
2. to convey heat & humidity — 3. to supply nervous fluid.

Lecture 10th Friday Nov. 18. 1808 —

I considered the Nervous System —

There is Sensation without motion; et vice versa.

Tetanus infests muscles & tendons but it does not the nerves and Brain —

I shall make Remarks on Brain —

1. It is of Great importance to Life
2. The Corpora Striata found always of the Same size —
3. The Skulls differ in different persons —
4. The Brain has three kinds of motion
   1. Pulsation of Arteries —
   2. Respiration { acts on Brain in expiration & inspiration —
   3. Muscular motion —
5. All nerves are derived from the Brain.
6. Intellects have been observed to be in proportion to the Size of the Brain —
7. Cerebrum is possessed of but little Sensibility
8. Mind is diffused through all the Brain.

Remark the Nerves —

1. They are Productions of the Brain and Spinal Marrow —
2. The large ones are composed of many smaller ones —
3. They are uniform in all Subjects —
4. They have Ganglions —
5. They are smaller in the heart —

6. The smaller nerves the more accute —
7. The Ganglia are to arrest the will.
8. The most nervous part the most sensible.
9. The involuntary nerves are less sensible & irritable than voluntary nerves.
10. Through all the Viscera there is an intercommunion of Sensation —
11. The nerves are differently modified for touch, taste, smell, hearing & seeing.
12. They are devoid of irritability —
13. They are more sensible the more dense.
14. They essential to the important Functions
15. When they are cut they are longer uniting.
16. Some say all parts not sensible but I deny this & beg leave to differ from them
The viscera possess less sensibility than some other parts because fewer nerves there.

Laws of Sensation

1. It is excited in proportion to stimuli applied.
2. There can be but one sensation at a Time. When blue & yellow excite, the sensation or effect produced will be green —
3. Certain sensations continue longer —
4. Sensation is destroyed by Disproportion
5. It influenced by habit —

Lecture 11th Nov. 19. Saturday

In Diarrhea - give Ipecacuanha -

A Dropsy cured without Tonic Remedies by Depletion

Muscles & Tendons -

There is more strength in Muscles than tendons —

Hollow muscles most irritable as the Heart.

The Act of the Will increases the Strength.

Quest. Does the Power that moves the muscles reside in them or in the Brain.

Lecture 12 - Nov. 21. - Monday.

Is The Brain is the Grand Reservoir of muscular Power? —

Origin of Muscular Power -

Motions are 1. voluntary - 2. involuntary or 3. mixed as in Respiration —

Involuntary Motion the Effect of Stimuli.

I believe none are primarily voluntary.

The ~~vo~~ voluntary are also explained by Stimuli.

This he illustrated by his coming in at 12 o'clk.

I came in apparently voluntary but my Body & mind being stimulated it was by Force —

Motion is carried on by Sympathy 1. Of Continuity & 2. of Contiguity

Three kinds of Continuity - 1. Reciprocal - 2. not & 3 Inverse. — Motion passes soonest 1. thro' nerves - 2. Skin - 3. Membrane beneath - 4. Lymphatics —

Lecture 13.th Nov. 22. 1808 _ Tuesday —

1. Some Sympathies are induced by Disease
2. In Disease some are suspended —
3. They are different in different persons, ages, sexes seasons, Climates — —

I shall now attempt to explain those parts which communicate with the Brain — There are five Senses to which Dr. Darwin adds a sixth, viz. a sense of heat —

I shall speak of the Senses as follows —

1. Touch — here I shall observe —

1. The Body is every where covered with Cuticle and this is thinest on the Glans penis & lips — and thickest upon the Soal of the foot —
2. The Cutis within the Epidermis —
3. Rete mucosum between the Cuticle & cutis.

The Cutis is not only outside but internally —
Touch is experienced through the nerves —
Sense of Touch is increased by fasting —
There are different sets of nerves for different Senses.
Sensation is increased 1. By putting the part in warm water. 2. by rubbing it on rough substance. 3. by
This sense is superior to the other senses —
The Crimson Colour of the Rose or the Cheek is not distinguishable from flame but by Touch —

2. Taste — The Tongue has nerves Blood vessels and lymphatics —

Taste is excited only in the Edges & tip of Tongue.
The Tongue is supplied with nerves from the ninth pair but those which produce the Sense

of Taste are derived from the 2d branch of the 5th pair —

Taste may be transferred from the tongue to the palate of the mouth or to throat — By an Errorsensus sugar has produced a bitter taste in a lady of my acquaintance A little Spirit on the tongue will by sympathy excite a sensation throughout the whole System —

There may be originally as many Tastes as there are original Colours, seven —

Lecture 14. Nov. 23 —

Jacob Davis is better — taken Calomel but has not salivated — he knew Dr. Rush.

John Austin — Anasarca — relieved by Bloodletting — Disease transfered to his Breast — I ordered 8 oz. of blood taken — low Diet.

A pulmonary Consumption — the patient lost 10 oz. of Blood — Antimonial Powder — vegetable Diet —

I come now to assume the subject where I left it yesterday —

3. Smell — The sense of smelling is performed by Means of the Septum of the nose & Spongiosum and a membrane. The Ethmoid & Sinuses are excluded —

1. If the Ethmoides was the means of communicating smell it would be larger in those who have the most accute smell —

2. If the Sinuses were means of Smell it would be in proportion to the Size of the Sinus - Some animals have ~~a~~ Small Sinuses and an accute smell —

Each odour produces a specific motion.

In some instances sweet & bitter and even heat & cold have produced a foetid smell.

The sense of Smell is more universal ~~than~~ that of Taste —

The Organs of smell are larger than those of Taste —

Air is necessary to the exercise of this { Sense.

Smelling best performed by shorter acts of Respiration than common —

It is rendered more accute by shutting mouth

A grain of musk has perfumed a Room for 20 years —

Sneezing is induced by Light

1. Strong Odours draw Tears from the Eyes.

2. It is appealed to by Judges of wine —

A man lived 3 Days on the Smell of Onions and Garlic —

Smell is connected with Diseases —

It is of use in cure of Diseases —

Ideas are connected with odours —

Odours affect morals —

When long applied they produce Debility.

Smell is connected with other parts of System.

Miasma & Contagion act upon the nose.

Smell serves to conduct us from the ill

effects of Miasmata & Contagion —
Smell serves to guide animals in the choice of their food — also to guide Dogs home.
It serves to bring sexes together —
Smell is more accute in Countrymen than Citizens —
Arabs find their Camels by Smell —
A man by the smell of perspiration followed his Brother 20 miles —
It serves to warm the air in respiration in cold weather —
There are seven original Smells — Others are compounded as colours are.
A man who had lost the power of smelling in his nose could receive this sensation in his stomach —
Foetor is a sign of unwholesome —

4. Seeing — Committed to Organs of Eyes.
The eyes are in the most suitable part.
The bone & other surroundants secure them.
What is round the Eyes called Bulwarks.
In the smallest Degree in moles and in the greatest in Birds —
There are 6 coats — & Three humours.
Coats — 1. Cuticle — 2. Cutis — 3. a membrane 4. a Muscular Substance — 5. Stratum — 6. an inner Membrane — — 1. Conjunctiva — 2. Sclerotica — 3 Cornea — without nerves — 4. Coroidea — numerous arteries & ~~nar~~ veins — 5. Iris — 6. pupil — 7. Retina —
Humours — 1. Vitrea. 2 Christaline Lens — 3. pellucid liquor —

Lecture 15th. Nov. 24. 1808 —

The qualities of the mind are sometimes discovered by the Eyes —

The Eye is the most noble Organ of Sense. The eye is the Miror of the Soul and the Masterpiece of workmanship of God — Much of our knowledge is derived through the the means of the Eye — —

Cautions in using the eye —

1. Do not lie on your back when you read, nor look perpendicularly down upon your Book but let it incline —
2. Do not have too much nor too little light when you read or write &c — Light best received over the Shoulders —
3. Do not press the Eyes when washing —
4. Black hair hanging down over the Eyes tends to preserve their Strength —
5. The Sight is further preserved by the use of Spectacles as soon as it begins to fail.
6. Another means to preserve the strength of the Eyes is to avoid the use of them in the evening — Time spent by candle-light is best to be in the morning —

Sight sometimes returns again to old people whose sight had faild —

This might have been the case with Moses.

The Antideluvians Age it is supposed was renewed every hundred years —

The next Sense & last is Hearing —
Here consider 1. The nature of sounds
and 2. The way it is conveyed —
1. Sound — divided into 1. sound properly so called, and 2. noise —
Vehicles of Noise are — 1. Earth 2. Air, 3. Water —
In Time of the Revolutionary War, a Soldier, imprisoned 70 miles above Philad.a & the British Army encamp'd as far below, was observed to go out and stick his knife in the Ground and put his ear to it to discover whether Philad.a was taken by the enemies & pronounced it was — and as soon as Time could disclose it his prophecy was fulfilled or found true —
Savages hear better than civilized people. Because their ears stand out farther —
The Os petrosum 100 times harder than any other bone in Body —
It is not necessary to open the mouth to hear perfectly —
A lady could hear a pin fall on the floor or thrust thro' a paper she could hear the ticking of a Clock but could not hear the sound of a drum or cannon —
Hearing is connected with 1. the Nose 2. the Eyes — 3. mouth — teeth & bones of mouth.
Hearing may be translated to other parts
The sound of a Drum always produced a pain in the Bowels of a Deaf man in this City —
There can be but one impression from two sounds — Note of Birds Melodious not harmonious.

Lecture 16. Nov. 25 —

The Faculties of the Mind are as demonstrable as the Bones of the Head — Some carry their mind about them as they do their watches to ~~view~~ use occasionally.

I shall treat

1. Of the nature of the mind —
2. Enumerate & describe the Faculties —
3. Explain the mental Functions —

1. Nature of the Mind —

1. It is not Material But 2. immaterial —

Remarks. 1. There is no necessary connection between Spirit and Immortality —

2. For If God has created a Spirit which he cannot annihilate there are beings independant of God — Impious Idea !! —

3. The Lapse of Time from the Death of the Body to the Resurrection is imperceptible to the Spirit —

4. The Mind or Spirit may be immaterial & may sleep in the Grave —

2. Enumerate & describe the Faculties —

Dr. Haller calls them internal Senses —

Craniology is the Knowledge derived from the Observations of Heads — A man skilled in this Knowledge was able to point out the Crimes of a number of Criminals —

The Sense of Deity is said by some to reside in the upper part of the Os frontis —

The more arched and elevated the Skull

is the more intellect the man possesses — says Levator The more Chin the more man —

I shall next describe the Faculties —

1. Instinct — For a more complete illustration of this I refer you to Baley's Treatise on Metaphisics —

Lecture 10. Nov. 26 —

2. Memory — For 1. Things, 2, words, 3 numbers and 4. Names; And these { 1 relative & 2 absolute —

3. Imaination — There can be no Imagination without memory — Imagination.
There may be Invention without Imagin
Fancy differs from Imagination —

4. Understanding — This may be compared to a Ship — memory & Imagination being the Cargo —

5. Will — Two offices are assigned to it — It does also assent and dissent —

6. Faith — This may be defined the Certainty of things not seen nor heard but known only by Information — Without it Business would be at an End — It is not the Result of Experience but it is a law of our nature —
We may put more confidence in the Knowledge received from it than ~~in~~ that which is derived from Reason —

I shall next speak of the Passions and emotions of the mind —

Passions are divided into good and evil —

Moral faculties are innate —

The Faculties may be divided } into { 1. Faculties properly — 2. A Sense of Deity or Theosophic Sense — & 3. Conscience —

A Sense of Deity distinguishes man from other Animals —

Conscience is a Judge of Law not a Lawgiver.

Lecture 18th. Nov. 28th

I next consider the Operations of Mind — They may be recollected by associating the initials of them into one word, viz. Pair —

They are divided into active & passive.

1. Passive — 1. Perception — This is the Effect of sensation —

2. Association — This Sympathy in the Brain is the same as Sympathy in other Parts —

We are thinking Machines — It is not in our own Power to think when we please as we please — there is an imperceptible transition from one thing to another & in company we may discourse about a Dozen things in a few minutes because they are associated —

We cannot think of a Nurser without having a Caesar or Bonaparte connected with the Idea —

So also the Yellow Fever is associated with the Idea of Ships entering our Ports in the Months of July and August — 51

This association is the effect of mechanic causes.

These associations may be produced

1. By Place — 2. Time — 3 Pleasure — 4, Pain — hence the custom of whipping Boys at Landmarks that they may remember them —

5. By words — hence the maxim, "You must not only Think much and read much but you must also write much." — 6 Sounds —

7. Odours — A lady when she took Rappee snuff was always reminded of her Mother who made use of the same kind in her Life.

8. Interest — 9. Consanguinity — and Lastly Custom and Habit —

It a great Benefit in curing Diseases for Physicians to attend to the Doctrine of Associations —

2. Active Operations — 1. Judgement — (Caino miasmata — means Bilious Fever —) Persons forced to hear arguments against their favorite opinion alter their Judgement —

2. Reason — This is the highest Intellectual faculty of the mind. It regulates confused materials —

Cold air is a sedative and Reason teaches that it is as useful in the yellow fever as in the Small pox — By this we discover that Bloodletting is as useful in Gout as Rheumatism. Reason progresses in Regular order —

Reason differs from Genius — Genius may be called Reason on the Wing - and Reason considered as Genius on foot —

Lecture 19. Nov. 29th

Operations of the WILL —

1. There can be but one act of Volition at the same Time -

A woman may knit and walk and talk talk at the same time but this is the effect of habit -

There is no power in the mind to move itself —

To deny that man is an intellectual machine is, with Reverence would I say it, to make a Make a machine of his Creator —

The mind acts most necessarily when it acts most freely and most freely when most necessarily -

2. Consciousness — The Objects of this are 1. Existence - 2. Actions - 3. Lapse of Time 4. Place - 5. Personal Identity —

We lose our Consciousness of the Lapse of Time when we are in sound Sleep in which we have no Dreams —

I shall mention the Order in which the Faculties operate —

1. Senses. 2 Fear & Joy - 3. Reminiscence - 4. Memory and 5. Common Sense and a Sense of Deity —

6. The Understanding - this operates about the 10th year - 7. The imagination, about the 12 or 14th - A Reason accompanies Youth & advanced Years -

From these Facts we are enabled to regulate the System of Education and should adopt that method which is best suited to the ages of Children -

At six years old a Child is able to understand the Structure, Figure & Nature of Plants - At 10 y. he may be taught Geography - About this also he may be taught the Knowledge of Deity - After this the modern languages such as he hears every Day - And when his Faculties become more matured he may enter into the Study of Grammar & the Dead Languages & Mathematics -

The Faculties begin to Decline in the following Order - 1. Memory - (1) for names, (2) words, (3) Places - 2. Imagination - 3. Understanding - But Avarice in bad men and Sense of Deity in good men stick by them as long as they live.

I will just mention the Circumstance of a Woman - She was grown quite old and had undergone a severe fitt of Sickness

and had recovered and being asked if she recollected such a thing which took place answered I have forgot every thing But My GOD. — The Faculties of some begin to decline much sooner than others — It is worthy of Notice Doctor Franklin had lost none of his Faculties in his 84th year.

Here I would urge you to study the natural & moral Faculties of the mind because of the Utility of this Knowledge in the practice of Medicine ——

Next notice the Difference between men and other animals ——

1. The mind is proportioned to Sensation — Men's senses are calculated to receive a greater variety of impressions ——
2. Brutes have no sense of Touch —
3. Impressions are made on the limbs of of Brutes chiefly —
4. Brutes have no Speech — through the Medium of Speech & word we gain knowledge. the animals that come nearest to man in this are 1. horse, 2. Dog, — 3. Elephant —
5. Men use their Fingers in mechanical operations ——
6. Men increase knowledge by Books —
7. They exercise their Faculties towards a greater number of Objects ——

A Buttonmaker resembles a Button — A Druggist a Gallipot — and a Soldier a Musket.
A Person recovering from a dangerous illness was desirous of exalting the Character of his Benefactor said he was a mere Physician — A man cannot be a mere Physician for it is necessary he should have much knowledge on every subject almost.

9. Brutes have only Reminiscence but do not discover any signs of Memory — A Captain of a Ship told me that his Dog died in a fit of Apoplexy brought on by a violent Degree of Anger —
The irrationality of Brutes arises from their want of Speech and words —

10. Brutes are governed by present pleasures.

* Now Gentlemen I have gone through an Enumeration & Description of the Faculties of man and am ready to defend the System I have delivered and I entertain no fear of the Evils to which my little Bark is exposed —

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* The following is omitted thro' mistake —
But man looks back on the past and forward on the future from which much of his happiness is derived —
Men live unreasonably with Reason while brutes without it live reasonably —

Brutes have less mind than man, and they have no sense of Deity — their minds may be immaterial Immortality is a gift of God and is not necessarily connected with ~~—~~ Spirit —

Turn Back to the first * the other Side.

Sources of Pleasure —

The first principle I shall lay down may appear at first strange to you but afterward you may discover the ~~Justice~~ Truth of it. — It is this, The natural State of man is Pain — (as they are born.

This is inferred from Infants crying as soon

Admitting this principle to be true it is nevertheless reconcilable to another I shall advance, namely there is and may be enjoyed through life More Pleasure than pain ——— Here I shall

1. Enumerate the Pleasures
2. Enquire into the Proximate Causes —

I shall consider Pleasure as a Genus — Here I shall introduce the pleasures of Senses.

1. The Pleasures of Touch —
   1. The use of materials — as Tobacco in smoking.
   2. Intercourse of sexes — { 1. in kissing
      { 2. in squeezing the hand.
   3. Temperature of air upon the Body —
   4. The use of the warm Bath —
   5. The action of Certain Exercises — as — 1. Walking — 2. Riding on horse — 3 Riding in Carriage 4 Swinging — and 5 in the Chace ———

The Indians talk of the Joy of Fear - this may be that Joy which they experience after a dangerous Chace when their pursuers have caught the contemtible animal of their Pursuit — —

Sailing in the air increases the pulse I gave Sir Blanchard a minute Glass when he ascended in his Balloon and afterward he told me he had four pulsations more when raised in the air than when down on the Ground —

6. Smooth substances applied to the Skin. A soft hand gently rubed over an inflamed part produces an exquisite pleasure —

7. Rest after Labour & Fatigue —

8. This I shall call hermophrodite and of this nature is tickling & riding in Sleigh.

9. A medium between Sleep & wakefulness.

10. Scratching — This called a Royal Pleasure.

11. The Pleasure of Dying —

When Mr. Hunter was about to leave this world said — O that I had a pen to write down the Pleasure I feel in Dying —

There was a Sea Captain in the Article of Death expresed himself thus It is not so hard to die as I expected —

There are some who die like going to sleep and then Dying brings a Pleasure similar to the above ninth.

Lecture 30. th — Nov. 30. 1808 —

2. The Pleasures of Taste —
These are Relative — They are varied
1. By hunger and, 2, By Habit —

3. The Pleasures of Smell —
This sense may be perverted —

4. The Pleasures of Sight —
A mixture of Red and white in the Countenance produces the most agreable pleasure.
Yellow & white the most precious money —
Were 3 pieces of money of equal size and one stamp presented to a Savage, if one was Gold another Silver and a third Copper he would first be delighted with the Gold and next with the Silver —
Man is the most beautiful animal. —

5. The Pleasures of hearing —
hence Music — vocal and Instrumental —
Not only human but the voice of Birds —
Pleasures are connected with the senses but not necessarily. —
Our senses might be perfect & yet be the Vehicles of misery and pain to us —
Every thing we feel might irritate —
Every thing we taste, be poison or bitter —
Every thing we smell be disgusting or sickning
Every thing we see be frightful & deformed —
& Every thing we hear be horid & dreadful —
But that Pleasure is connected with all our senses is the effect of the Superabundant ~~of the~~ Goodness of God —

From this View we see that Pleasure predominates over pain ——

I come now to speak of proximate Cause

1. Motion in the Nerves —
2. The Pleasure is produced by a certain definite or limited Degree of Motion & that in a regular Order —

Here I must make one or two observations which more properly belong to Therapeutics — viz - the Cause of Pain —

It consists 1. In Distention - 2. 3.

A high Degree of Distention produces pain & a smaller Degree is pleasure —

An Excess of light is produced by an Excess of Stimuli ——

The Final Causes of Pleasure ——

Cases in the Hospital ——

1. A Pulmonary Consumption cured by salivation —
2. Another Case - Cough - Spitting - Recipe - Volatile Alkali - Blister on Breast —
3. A Clergyman — Mania — Cold Bath postponed untill warm weather ——
I ordered the Rust of Iron given ——
4. Mercury under the arm acts sooner than if applied any other way ——
5. Anasarca — ℞. Blisters below the Knee. On the ancles they sometimes mortify —
A Recumbent posture & rub leg upwards ——

Lecture 21st December 1. 1800 —

Pleasures of Moral Faculties —

1. Piety &c — 2. Vanity, ambition &c —

3. Depravity ——

A man may take pleasure in the sound of the Guilotine ——

A Prisoner of whom I heard took pleasure in the agonies of a poisoned Cat ——

4. Pleasures of Agriculture —

5. Cessation from Labour —

6. Hearing of a Victory — this has been known to cure the Scurvy and the Ship Fever ——

8. They are compounded —

9. Those derived from Association of Ideas.

10. From Consciousness — these 2 kinds

1. Existence — 2. Personal Identity —

Pleasures from Mental Operations.

1. Memory — 2. Imagination — 3. Understanding — 4. Will —

Some take pleasure in their Passions.

Some in exercising Justice ——

Next. The Proximate Cause of Pleasures of the Mind ——

Due Impression, Distention, and regular motion produces pleasure and the Contrary produces pain ——

Disappointment in Love has produced a settled habit of Virtue — —

Death and Eternity are Sources of Pleasure —

Reposing in Sleep —

Sleep affords the Same Repose to the Nerves & Brain as rest Does to the Muscles —

Here I shall consider

1. The Proximate Cause of Sleep
2. The Remote
3.
4. The different Phenomena in Sleep
5. The Causes of Dreams in Sleep —

The Sleeping point is 20 —

Whatever tends to elevate or depress the System to the Sleeping point produces it — Distress & anxiety does this —

Hence Criminals have slept well the night before their Execution —

Hence we may account for the Sleeping of the Disciples of our Lord when with him in the Garden —

Sea sometimes produces sleep and at other Times prevents it —

When near the point it may raise above — when 8 or 10° below it induces —

These Observations are important.
Opium sometimes should be given & sometimes not on the same principle.

The 3 Classes of stimuli should act equally upon the Brain — Nerves — Muscles — and Bloodvessels —

Breathing Respired Air — or Azigos produces Sleep — and sometimes Death. Hence we account for some getting to sleep in a large assembly — and of some dying when shut up in a Room with Burning Charcoal —

Lect. 22d — Dec. 9d — Friday —
Causes of Sleep —

1.
2.
3.
4. There is less excitability in the System.
5. All the Secretions are increased —
The Centrifugal power greatest in a State of wakefulness & Centripeta greatest in Sleep —
The System weaker in Sleep than awake —
Many deceive themselves who think they do not sleep — I heard of a man who said he had slept none for ten years — but he was certainly deceived — his sleep came on and went off so gradually that he did not perceive it —

We awake more suddenly than we fall asleep — 63

State of Body after Waking —

1. It is more debilitated —

This is more sensibly perceived in the season when Birds do not sing — The moral faculties best exercised in the morning —

Causes of Dreams —

Question — Are Dreams necessary? —

I once met with a very old woman who told me she never knew what a dream was. A man who lived entirely on vegetable food told me he never dreamed any —

When the memory sleeps we do not remember our Dreams —

1. Morbid actions produce Dreams —

If the Understanding sleep we have incoherent Dreams —

When the Mental sleep we have immoral Dreams —

Dreaming is a low grade of Delirium Delirium is a high Degree of Dreaming.

Memory is kept awake thro' Desire.

Images are more vivid in Sleep than awake.

Ideas are revived in Dreams which are not recognized nor recollected —

When the System is below 20 the Dreams are more distressing. —
2. The Understanding being raised above par another Source of Dreams —
3. The will acting with preternatural force —

The nature of Dreams depends on the nature of the Stimuli which excite 'em.

Talking in Sleep is accompanied with hearing —

Somniloquists — those who talk in sleep.
Somnambulists — those who walk in Sleep.
These differ from waking people
1. They do not remember what they do.
2. Their Exercises do not fatigue them.

Lect. 23.d ~~4~~ Dec. 3.d Saturday.

Enquire in what way the wasting of the System is restored —
1. By Aliment — 2 — Drinks —

Why are these necessary —
1. Without them the Body could not be supported —
2. To induce men to cultivate the Earth.
3. This Regulation promotes Industry —
4. Eating & Drinking are Sources of Pleasure.
5. To draw fourth our Gratitude to our Creator —

On what do hunger & thirst depend?

1. Hunger –
1. Relaxation or Excitability in the stomach — There is a hungry point —
2. Acrimony of Gastric Juice —
2. Thirst. — { 1. Fear &c —
2. Acrimony in the Fauces.

In what manner is Digestion carried on —— This is
1. mechanical – 2. Chemical —
The nerves of the Stomach are absolutely necessary to the solution of food –
If the eighth pair of nerves be cut Digestion is entirely stopped —

Lecture 24. Dec. 5th. Monday —
The Liver furnishes a fluid which corrects the Chyle ——
It also receives & anamalizes the Blood.
Use of the Hepatic Bile —
2 It serves to precipitate the Excrement from the Body ——
The Liver is a secretary & excretary organ.
3. It separates foetal matter from the Chyle.
The Pressure of the Stomach on the Liver obstructs the Secretion

From this I infer that Pressure obstructs other organs of Secretion —

(Disphagia - Difficulty of Swallowing.)

(Diabetes - a Want of Secretion in Liver)

In abstinence Bloodvessels become full & tense from weakness in the Organs of the Liver -

Diseases of the Liver & Stomach are reciprocal.

Purging necessary in Fever —

Use of the Spleen -

~~F~~ To prepare Blood for Secretion —

Proposition — All motion produced by stimuli - either inward or outward —

~~Then~~ Liver is 4 times larger than Spleen -

It is stronger than liver - but one artery - and no excretory Duct —

Laughing may burst the Spleen -

The Spleen is a Reservoir for the superfluous Blood of the arterial system —

Obstructions of the spleen are closely connected with Hemoragies

This view teaches the necessity of Bloodletting - & moving of Obstructions of Spleen.

In other Diseases that depend on this, suit Remedies to this viscus —

Tuesday – Dec. 6. — Lect. 25th.

Thyroid Gland — Use – to prevent the Blood from rushing into the Brain as the students did to Day into the Room ready to break each other's necks and the Doors and crush the Genita under their feet —

Thymus:
It has three Arteries but no secretory —
It serves the purpose of a waste gate —
A Child seldom spits before 2 or 3 years old. —
In a Catarrh Children require more bleeding on this account than grown people —
Women's lungs more exposed than men's, from Menses and Pregnancy —
Lizzy Blood in Pregnancy & Spring —
Violent action of vessels dissolves Blood.
Nitre disposes the Blood to coagulate —
So also all causes that produce more action.
The Febrilae of the Blood homogeneous with those of other parts of the Body —
The Serum carries off from the Blood the unnecessary parts —
The Blood & Bloodvessels mutually stimulate each other – As the heart and arteries —
Three state of coagulating Lymph —
1. of Dead muscles – 2. living muscles – 3 of the membrane –
Globules of the Blood are not oily —
1 or 2, ounces of Iron in Blood of an adult —

Bite of a Viper dissolves the Fibrum of the Blood —

Globules are not necessary to life — The quantity of Blood in an adult is about 25 lbs. and of fluids 50 —

Blood is source of life & Disease —

Red blood in serous vessels constitute inflamation — —

Lymphatics —

Facts — Mercury on the left leg salivated but one side of the mouth —

They have coats - valves - arteries - celular membrane — retrograde power.

Lecture 26. — Tuesday Dec. 9th

Lymphatics absorb solids & Fluids

An armistice between the Blood vessels and lymphatics produces Disease —

The Lungs afford an extensive surface for absorption —

There do no Lymphatics approach the Skin —

No air is absorbed through the Skin,

No increase of Weight after Bathing only what water

Many poisons do not enter the Skin —

Variolous matter bound upon the Skin or taken in pills will not communicate the Contagion unless in contact with Blood —

Causes of Absorption – 1. Distension
2. Pressure – 3. 4 Vomiting
Mercury – electricity – heat – Abstinence &c.
A young man went two weeks without making a Stool & then no more than common
The Lymphatics keep up a Due Degree of Fluidity –

Secretion in General –

Lecture 27th Dec. 8th

Secretions
1. Saliva – 12 oz. in 24 hours –
2. Pancreatic Juice – of the same nature with the Saliva – this diffused through all parts of the Body –
3. Synovial – this secreted in the night –
4. Urine – It consists of 11 different Substances –
Watery urine supposes a passage directly from the Stomach to the Bladder –
Study has a Tendency to promote Urine – Fear also operates the same way.
There is not so much Phosporic of Lime in the urine of Children as in that of adults owing to the great demand of it to supply the Increase of the Bones.
5. Semen –
6. Tears – these are watery and saline & the tears of Aged people sometimes acrid –

7. Milk — Composed of Oil mucilage & water.
And it owing to the oily nature in milk
that it is hurtfull in the Gout & Pulmonary
Consumption & wherever their is any symp-
toms of Inflamation — —
A child does not take a Disease from
his mother by drawing milk from her
Breast — because milk has not the power of
communicating it —
We find by experiments that several of
the fluids exist in the Blood & that these
substances may be together without mixing
with the Blood —
8. Fat — Uses — 1. to facilitate Motion —
2. to augment the Beauty of Countenance —
3. to increase the animal heat — It has
been shown that the fat is in a fluid State
until it is joined with Oxigen —
4. It nourishes the Body —
Haller it is said found some lobes of fat
in the Blood —
Man acquires and loses Fat the soonest
of any animal —
A Person who is very fat has less
Blood than a lean person of same weight.
This may be owing to the pressure of the
Fat upon the arteries & veins in compressing.
This maxim is well known to Butchers
Poulterers & Physicians — but is of most impor-
tance to a Physician — A Butcher when

he has noticed the quantity of Blood drawn from the Victim will immediately tell whether it be fat or not.

Of Equal importance is this in Bleeding - if the patient be fat a less quantity of Blood should be taken under the same circumstances than if he be lean -

It has been a common mistake among Physicians to draw more Blood in fat and corpulent persons than the contrary habit.

Excretions — In these I include Bile & insensible Perspiration —

1. A man, becoming very angry in the house of a friend of his, went out and discharged from his stomach a gill of Bile and then came in his passion of anger having almost left him —

2. How do we know ~~in what manner~~ that an insensible perspiration is induced? By washing & wiping the arm dry and applying a

Is the Perspiration discharged wholly from the ends of Arteries? — Some say so —

Perspiration is watery - tasteless - saline and emits certain odour —

It is said that a certain man from the acuteness of his Smell was able to distinguish a Virgin from a married Woman by the odour of the Perspiration —

The Odour of it is derived from animal food; a vegetable diet does not affect it — There are no sebacious Glands in the Skin.

3. Sweat — This is discharged from the same source the perspiration is —

There is more sweat discharged in the fifth & sixth hours after supping than in all the time intervening after supper.

The meals of the sick had better be divided & let them eat less at a time & often —

People perspire more in Bed — therefore the sick in some cases better set up much —

Sanctorious says the Excretion of sweat is more in the sleeping than waking state. Some are disposed to deny this —

Forty three ounces of sweat are supposed to pass off of a person in the United States in twenty four hours —

Climate — age — sex — season whether hot or cold — winter or summer — influence sweat.

This matter is retained when the Body is in a State of Debility —

It varies in an unhealthy State — 1. acid

2. 3. 4. Bloody —

4. Nutrition

Some say this is carried on by the nerves — But this must be an error — experiments prove it. A nerve was separated & the part was nourished — Not carried on by brain — else proportionate — An ox has small brain a man large — — carried on by arteries.

D. J. Swinney — Philad.a Dec. 9th. 1808 — Friday —

Notes on Dr. Rush's Lectures No. 28 —

Gentlemen —

I come in the next place to speak of the Peculiarities of the male & Female Body and Mind —

These Peculiarities are general & local.

1. The Female Body — 1. General peculiarities —

1. The Size — It is generally less —
2. The Bones — these are less compact —
3. A Female sooner acquires her Growth —
4. The cuticle is softer and thinner —
5. True Skin also softer —
6.
7. The liver is larger —
8. The heart & arteries less strength & Contractility.
9. The nerves are more sensible —
and 10. ~~Wo~~men perspire less than men —

2. Local peculiarities —

1. The Pelvis is larger & more capacious,
and the Trochanter farther apart —
2. The Uterus & appendages belong to females.
3. The External Organs of Generation —
4. Discharge of menses confined to them.
5. The Glands of the Breasts ~~larger~~
6. The Thorax more enlarged in Respiration
7. The Voice more soft and shrill. —
8. Females are longer lived than males —

2. The Female Mind — (Cont.

1. Understanding less comprehensive & vigor.
2. Imagination less extensive —
3. The memory for words more retentive but for Ideas less —
4. They have a more refined taste —
5. The Operations of mind are quicker hence they are sooner irritated & pleased —
6. The moral faculties are more ~~sensible~~ (accute. females are more kind, humane & Charitable but less benevolent — They are more apt to want veracity & are given to Duplicity.
7. Females are more agreeable in middle life & Better Supporters of old age —
8. They are more inclined to Despair — In an Earthquake at the women were found lying on the Ground with their Arms folded across their Breast as tho' they were more resigned while the men's arms were stretched out denoting that they Struggled to their latest Breath —
I have no Doubt that many patients are lost owing to mothers desparing of Life.
9. They have quicker perception but less Reason and Judgement —
10. More Fortitude but less Courage —
11. They are more inclined to sociability.
12. They are more apt to disclose secrets hence it is said they keep none but their own. while men impart others to their own —

~~13. They have greater fondness for Society~~

13. Their venereal appetite stronger — They exceed sometimes in some vices

14 — Harder for them to forgive offences —

15. More delicate and modest — Some may ascribe this to Education but it is discovered so young I rather ascribe it to Instinct —

To these original Differences between males & females there are some Exceptions —

Catamenia —

1. This is confined to human females —

2. It appears at different ages and in different Countries & Climates different —

It appears sometimes early as 12 or 14 years of age — most commonly at 15 —

It appears sooner in women in high life than labouring women —

After an early appearance it is apt to be more irregular —

3. It generally ceases at the age of 45 —

It sometimes returns again at 90 years —

4. The quantity discharged is from 3 to 5 oz and continues ~~three~~ one or four Days and continued till 80 — returns monthly — After Birth Blood discharge from the Vagina & not the Uterus —

5. Diseases more violent in Menstruation.

The Causes of Catamenia may be divided into the Original & periodical.

1. Original — 1. Brown supposes stimulus of the venereal appetite — but it is observed to occur where the desire is gratified & where wanting.

2. Plethora — Is this plethora general? —

3. Sinus in Uterus.

Hemorage & the menses are preceded by Plethora — I suppose the menses to be similar to the hemoptesis or bloody discharge from lungs.

2. Periodical — Not the moon, as Dr. Darwin. but a certain association in the System from actions or Ideas ——

Speak next of Design —

1. Not to supply the foetus — Arguments

1. Brutes do not discharge menses —
2. The quantity is to small — 36 oz —
3. There have been obstructions for three months before the Birth of Child ——

2. To keep up venereal appetite — This is observed to come on about time of menstruation.

3. To excite fullness, tention & extentions in the Uterine vessels ——

Women more apt to conceive before or after —

In virgins the Uterus no larger than a pea.

The male Constitution changes at Puberty — 14 years — the voice becomes harse — the beard sprouts — a 3 yearling had a beard —— Seminal vessels irritated produced madness. —

Lecture 29th Dec. 10th 1808.

Causes of Generation —

This is a Subject involved in much Darkness and Mystery ——

It may be ascribed to an ovum in the Semen ——

The acridity of the Semen may act as a Stimulus in producing Life.

Pregnancy is more certain after Recovery from Sickness ——

Travelling to foreign Countries has disposed barren women to become fruitful ——

Anomalous signs of Pregnancy

1. A glowing heat in the Leg —
2. A passion to steal any thing that may happen in the way —
3. Children refusing the Breast —
4. A Disrelish for Snuff ——
5.
6. A Relish for aliment before disgusting.

— A necessary preparation for pregnancy is to guard against inflamatory Diseases ——

The Uterus may be compared to a Green house and the to the plant which is only to be nourished.. there —

Some say a certain Degree of pain is necessary to bring forth, this may be true with a good many exceptions.

The Females of Africa are said to Experience more pain in Child Bearing the those of more northern Regions—

These Pains may be alleviated by.
1. Taking a quantity of oil internally
2. Bloodletting in a certain Degree—

I have said a Proper Ratio of Excitability and Excitement is health—

Here I take a farewell of the Subject of Physiology.

But before I enter upon the means of Preserving health I mentions such Books as are proper to be read on the subject— Since by examination other systems are found to differ in many Respects from my own I shall prefer the Books which I myself have written—

Lecture 30th Dec. 1812

On Preservation of Health —

1. Some live on one kind of Aliment alone —

2. Best to live on a mixture of animal & vegetable food —

Vegetable disposes to Disease of the Stomach & Bowels and premature old Age.

Animal food alone disposes to malignant fevers & Eruptions of the Skin —

No Suicide among Brutes —

It is not necessary that Aliment should digest soon —

In materials fit for Food there is

1. Sugar — 2. oil. 3. Mucilage — 4. Gum —

1. Grain — Wheat most nourishing — Bread made of it is best eaten cold —

2. Rye — nourishing — Rye & potatoe Bread. Apple & potatoe pudding —

Boil potatoes of same size together that they may be equally cooked —

3. Onions contain little nourishment

4. Pea Broth — — 5 Cabbage offensive —

Flesh of Female animals more Soluble —

Adults' flesh more nourishing —

Wild animals more easy of Digestion.

Salt meet fit in autumn for labourers —

Domestic animals harder of Digestion than wild —

The lean part of fat animals is more nourishing than the lean of lean animals

There should be Chimney in a Cellar —

Lect. 31st Tuesday Dec. 13 —

Eggs are of a Vegetable & animal Nature.

The small end warm if they are sound —

They may be preserved by rubbing them over with melted Tallow or Beeswax.

Some Condiments retard & some assist Digestion —

A great Quantity of Sugar & molasses injure Digestion —

There has been a Revolution of Diseases in Europe & America by the introduction & extensive use of Tea & Coffee.

The Diseases are transferred from the Bloodvessels to the nerves —

Drunkards are not very fond of Tea and Coffee —

Strong Coffee keeps up wakefulness —

Iron Vessels best for Cooking in —

Water a little warm best to quench thirst.

Water affords some nourishment —

Lecture 32. Dec. 14. 1808 —

Manner of using Aliment. —

A Person may as well say that immorality is not Criminal when he feels no remorse for it as to say that Intemperance does not produce disease when he feels no immediate ill effect of it —

The Indians after a gluttonous meal indulge themselves in sleep which in some Degree obviates ill Effect.

Day Labourers instantly engage in in Work to obviate ill effects of Drink.

Appetite an unsafe guide in eating.

He that Doubts & eats is condemned.

Taste is an unsafe Guide

The cordial Reception of food no certain Rule for taking it —

The quality of food should regulate the quantity —

The Size & fat influence — Fat people are little eaters —

Mixt food if disagreeable should not be eaten —

Fish more nourishing than vegetables. It should be eaten without other animal food

Make a meal on one kind of animal but variety of vegetable —

Eat little and often — Indians eat in the night — The use of ardent spirits tobacco & opium arose from too long Intervals between meals —

There is one principle meal in Day. Romans take this in morning — Americans take it at or near noon —

Best not taken immediately before Sleep because wakefulness is most favourable to Digestion —

Never sleep in a horizontal position after a full meal because the Stomach presses upon other viscera —

Take meals at same hours.

Physician & men in Business cannot always.

Wine & Bitters hurtful just before dinner.

Less Drink the Better before you finish your animal food —

Dispepsia arises from Drinking too much at meals —

Common practice of carving is unfavourable to health —

Take animal food in Rotation — By this means it will not satiate.

Abstain from food sometimes.

Eat but little in sudden emergencies.

Take less food in warm weather and time of malignent fevers —

Convivials fast once a week —
Give nature a holiday to clean out
her streets —
Nature is unfriendly to excess —
Inure the system to eat any thing
A little excess is necessary —
Idiosyncrisy is hereditary - natural
or acquired — Masticate food well —
Avoid drinking healths —
Rules for Preserving health are
Relative — 1. Age - 2 Sex. 3 Occupation.
Children require food for strength & growth.
Indian corn, potatoes, oatmeal, sugar and
molasses are best —
Some Soldiers grow out of Corn —
Children should have no salt meat with
their breakfast or Tea —
They should eat sparingly of Butter —
a little sugar — After school a crust
of Bread or a potatoe — No ardent Spirits —
In Youth Bloodvessels irritable - nerves sensible
Few Condiments — no ardent Spirits —
Good health is a Capital as money —
From 60 to 75 is first part of Old age —
After that called decrepitude —
This stage requires Cordial — soup - fruit &c

Nearer 75 eat oftener — Wine is not the milk of old age — little wine good —
System subject to Plethora —
Bleeding best mode of Depletion — small and frequent —
2d Stage take food between meals or in (night.
Drink. diluted fermented liquor —
Inactivity produces Disease — the food of Studious should be little nourishing and gently stimulating —
A man eat 3 eggs a day — at night a (full meal.
Labourers food stimulating & nourishing
Salt Pork — hard boiled Eggs and Onions —

Lect. 33d Dec. 15 —
Advantages of Diseases — enumerate 10 —

I come now to Pathology —
Here I have no guide — Old Systems poor things — follow my own —
Pathology is a Science ~~that~~ treats of the Causes — Seats & Signs of Diseases —
The Causese are Divided into — 1. Remote 2. Proximate — 3. Exciting — 4. Predisposing —
The Circulation of Blood or an act of the Mind may excite Diseases —
Symptoms are the Effect of proximate cause.
Symp.s denote the proximate Cause & Seat.
The Proximate Cause is the Disease itself or ipsi morbus —
Proposition — Debility is the disposing Cause of all Diseases —
Debility is 1. natural or 2. acquired —
1. Natural — This is sometimes brought on in the Womb by Intemperance, undue exercise &c. of Mothers —
2. Acquired — By, 1. hereditary communication
2. washing Infants in Ardent Spirits
3. Giving them unwholesome food
4. Improper Dresses for Children —
5. improper use of Opium
6. premature Studies — in 3 ways —
1. Grammar — 2. Foul air — 3. Tyrany of Masters.

7. Accidents — sometimes from angry mothers.
8. Amusements — lifting by hair of head.
Debility may be General or partial —
Writers distinguish 4 Temperaments
1. 2. Sanguiferous. 3. Bilious — 4 Melancholy
I Object to all these & adopt the word Predispositions — And this may be
1. That depending on Bloodvessels — and this may be divided into the Aortic, pulmonary and Uterine —
2. Hepatic — In this liver larger than common & swelling also in right side —
3. Nervous — Such said to be all nerves —
4. Muscular — Such are disposed to great action — have little intellect & sensibility
5. Scephalic — the celebrum affected —
6. Phrenitic — the Cerebrum affected —
Madmen do not complain of previous headache — The Phrenitic appears
1. In an early disposition to apply to and acquire knowledge —
2. In an Aptitude to Delirium —
7. Alimentary — This divided into
1. the Gastric — 2. Intestinal —
8. Lymphatics — the vessels accelerated — most active in Diabetes —

9. & Lastly — Cutaneus —
These are the Seats of Disease.
I shall make some Observations
1. These States or Predispositions
exist more or less in all
Suppose a child born free from them
they soon acquire them —
Dreames show the System diseased —
2. More than one discovered at a time.
3. Arterial & lymphatic are to be met
with in warm Climates —
Nervous & arterial in Hysteria —
4. These differ in different Seasons —
5 The same predispositions often
belong to a whole family —
6. They are somtimes confined to
some Countries untill they are
lost by Intermarriages or Emigrant
7. The Variety of the Mind depends
on predisposition there is in
the Bloodvessels, nerves & Brain.
8. Predisposition of one part may be
attended with a strong part —
9. The same Cause acts differently

from a different Predisposition

Four Boys were equally active in the same play under equal circumstances & were all taken with different Disorders —

Time removes predisposition —

Disorder is the Effect of Disease

Disease is morbid action in System.

I shall consider the imaginary point of healthy excitability to be 50 —

The system may be elevated to 60 and depressed to 40 afterward — —

When reduced from 50 to 40 - I shall call it Debility from Abstraction -

When raised to 60 & depressed to 40 I shall call it Debility from Action -

These are what Dr Brown calls Direct & indirect Debility —

The Consequence is the Same —

System below 40 easier excited —

Debility does not necessarily end in Disease.

Children & aged people most predisposed to Disease —

Above 50 or excess of health, called elevated to distinguish it from morbid -

Franklin says Catarrh arises from Intemperance in eating & drinking — This is because

Lecture 34. Dec. 16.

Costiveness symptom of Debility in Bowels — Coma, in the Brain — — — —

There is but a Cobweb partition between health & Disease

Debility invites Depression & Depression Disease —

Debility & Depression may exist at the same time —

Sudden loss of Equilibrium of System produces Disease —

Expended excitability does the same.

Rest by inducing an accumulation of of Excitability brings on Disease —

All remote Causes are but a unit —

There is but one stimulus in the world —

This view has many analogies —

Disease* however excited consists in Morbid Action —

Morbid excitement which Dr. Cullen calls Reaction, is obvious & sensible —

Suffocated excitement appears in prostration and Depression —

Pain is but a symptom of Disease —

Disease is always partial —

There is but one Disease & this is Morbid Excitement or irregular Action — Storms arise from morbid excit. in the air. There is but one Sin — that is self-Love — Absense of a good principle is vice — There is unity in Cause but Variety in Effect. Disorder commonly preceded by Disease — Some die of Disorder & Debility without Disease.

This may be compared to a Ladder which has the following Steps —

1. Elevated natural Excitement
2. Debility
3. Preternatural Excitement —
4. Depression
5. Occasional Cause
6. Morbid Excitement
7. Oppression
8. Prostrated excitement
9. Disorder
10. Debility left by the Cure or Removal of Disease.

There are many exceptions to this progress. It may step up two or three steps at once —

Lecture 35. Dec. 17.

Reaction is owing to two Causes

1.

2.

Disease is simple morbid action —

Inflamation is the first effect of Disease.

The Primary forms of Disease are 6 —

1. Convulsions

2. Spasms — as Tetanus

2 kinds — 1. Tonic —

2. Clonic —

3. Preternatural heat

This is 1. Internal & 2 External —

4.

Never accurs internal

5. Transient Pains — as Tic Doloru — Auras.

6. Suffocated excitement —

Bleeding diffuses the morbid action through the whole system —

Coldness, hemoragies & sweating are excluded from the Forms of Disease —

The Unity of Disease may be illustrated by fire — It would be absurd to say white, black, red, blue, & carbonated fire —

Demolish the medical Pagoda ——

Nature has but few Causes & many effects while art on the Contrary has many causes and but few effects —

Make a few Observations —

1.
2.
3.
4. Is System depressed — remove by Bloodletting
5. Is there accumulated excitement? — Expend it by moderate Reduction — not low Diet —
6. Is it sudden evolution of Excitement?
7.
8.
Keep up uniformity in the System —
9. Is it partial excitement? equalize it —
10
11. Depression
12. Is it below 40? excite morbid action
13.
14. Is disease a Unit? Will not morbid action in one part yield to the same means of cure as in another —

We extinguish fire by abstracting air or fuel, or by casting water on it —

So we cure Disease by abstracting Stimuli or leaving to nature — or by stimulating. —

Lecture 36. Dec. 19.

Effects of Disease

1. Inflamation – The Cirulation is more languid in the Inflamatory part – It usually begins in the veins –
2. Effusion of Serum –
3. Increased Secretion
4. Productions of Schirrous –
5.
6. Eruptions on the Skin –
7. Ossification of some part
8. Cancer
9. Changes in Blood & all the Fluids –
10. Gangrene

Seats of Disease –

~~Divided 1. into common & proper –~~
~~2. — primary & secondary~~

We often judge erroneously of the Seats of Disease — Shown from 3 particulars.

1. Disease may sometimes be said to be dumb.

2. Some sensations occur in the part remote from the seat.

3. Dissections show the Seat to be sometimes where it is least expected —

Pulse rarely refuses to signify the State of the Disease — And then I can cure it whether I know where it is seated or not.

Signs of Disease

The symptoms of Disease differ in persons at different times — in different Countries, ages & sexes — & in the same persons in different seasons —

1. Pain — Pain is induced

1. By the process of Solution of Continuity.

2. By Relaxation of Muscles —

3. By Chemical Substances —

Pain is of an attractive nature —

Lecture 37. Dec. 20 –

2d. Sign is in the Pulse –

The radial artery is a great part of the System –

(Here he entered upon the Substance of his 3d. & 4th Lectures – on the Pulse –)

Anger increases pulse to 104 and Grief reduces it to 60 –

Running increases it to 150 –

Distinguish the opium & bark pulse from the morbid –

In healthy state pulse sometimes preternaturally slow – others frequent.

I knew a man's pulse never below 100.

You must sometimes bleed in pulmonary Consumption without regarding the Pulse –

A sulky pulse denotes but a partial diastole of the heart –

In Synocha pulse the arteries themselves are affected

only convulsed.

The Hectic pulse rarely Synochus or Synocha –

In some Degree Typhoid –

2. Combined { 1. full, strong, quick
2.
3. small, weak, slow –

Lecture 38. Dec. 21 –

He is the best Physician who is able to regulate his practice without the pulse altogether –

The Morbid State of Pulse –

1.

2. weak, low pulse – pulse of Debility –

3. Aneurismatic,

A case accurred in which the pulse was absent 9 Days & the man recovered.

The Pulse may be divided into 10 grades – 5 above & 5 below par or nought.

The Rev.d Mr. Jennett of Upperfreehold was apparently dead & was laid out in his Grave Clothes – Some of the friends together with the Physician apprehensive he was not dead were resolved to ascertain – accordingly his hand was immersed in warm water a little while & a pulse was excited – his grave clothes were removed and he revived and preached 40 years after.

The following Remedies should not be prescribed without feeling pulse – Viz. Opium – Bark – Steel – purge – Blister –

Issue – Seton – Pedeluvian – Hot and cold Bath – Aliment and Drinks.

If I were to erect a Temple of medicine I would have inscribed over the Door – Let no man enter here who is not acquainted with the Pulse —

Disease is divided into

1. Idiopathic and
2. Chronic and
3. Epidemic which pervades a whole community –

Endemic, infecting a particular part of a Town –

Sporadic – solitary Cases –

Intercurrent – coming between –

Part of the Cure of Disease consists in removing the remote and exciting Causes –

Here I shall enumerate the Remote, predisposing & exciting Causes.

I. Sources of Disease from Atmosphere These may be divided into –

1. Sensible qualities – 2. Extraneous –

1. Sensible – which are 1. heat.
2. Cold –

I consider the positive & negative effects –

96° hot – 60 warm – cool cold

1. The positive effects of heat –

1. In Arteries it induces
2. – Nerves excitability
3. – Muscles irritability
4. – Brain sleepiness by Day & wakefulness by (night
5. – Mind sprightliness and finally irracibility –
6. It dulls the sense of touch –
7. – produces boils & dryness of skin this last usually precedes sickness –
8. It prevents menstruation ——

Lecture 39. Dec. 22 ——

Heat in its first application is a sedative power –

The stimulant effect of Cold may be inferred from the Discharges is induces from the Eyes & noses of aged people – and from Cold producing fever –

Fever is induced from the Sedative

power of Cold taking off the Equilibrium of the System ——

Cold is the Effect of the Abstraction of heat — — Morbid effects of Cold —

1. In Arteries — It induces — irritability & contractility.
2. It affects the nerves with Torpor —
3. It introduces Langour in muscles.
4. Brain
5. The Faculties of Mind
6. The Senses
7. It invigorates the appetite — Aliment counteracts Debility —
8. On the Skin it produces obstructed perspiration, Eruptions & Dark Colour.
9. It weakens venereal appetite.
10. It contracts the Solids ——

Relative effects of Cold —

1. Dry uniform Cold winter is healthy —
2. Its morbid effect is lessened by habit —
3. ~~also~~ by natural insensibility of some parts.
4. less in persons disposed to nervous hyoterics.
5. Less on Children ——

Comparative effects of Cold-

1. Sudden Change from heat to a lower Degree of heat produces Fevers, Spasms & numbness ——

We suffer less in walking or Standing in an atmosphere of 32 Degrees heat than in 45

Cold acts according to its Duration.

Ladies have brought on a Consumption by going in the Cold with their Elbows & arms naked——

Cold acts more suddenly on old than on young People —

More powerfully in Sleep than awake.

It is more hurtful in Summer and autumn than in winter —

Cold is our greatest Enemy ——

Lecture 40. Dec. 23.

Miasmatic Exhalations.

1. Moisture is necessary to the production of marshmiasmata —

2. Marsh overflowed with Salt water more productive of Disease than fresh — Exhalations from fisures in the earth is called Breath —

3. Matters which produce miasmata must be in a putrefactive State — Early in the morning most favorable to miasmata —
No noxious vapour between midnight and 2 o'clock —

4. Miasm may continue in the System 30 or 40 Days or 6 months without being excited into action —

5. They act most powerfully in moist weather — habit somtimes prevents the action of miasm —
The Yellow fever is but a high grade of intermittents —
When miasmata act upon the stomach it produces Gastric State of fever —

When upon the Intestines, - intestinal Miasm disorganizes the Spleen -
When in Lymphatics it produces Dropsy and glandular affections ——
Why is not the Blood tinged with black bile as well as with yellow? ——

Origin of human Miasmata -

Derived 1. from unclean & foul linnen -
2. Confinement in a Crowd -
3. Low vapid aliment -
4. Putrid aliment
5. Neglect to change Clothes -
6. Depression of Mind -
7. A mixture of Ships' Crews -

Other excretions are not so liable to produce disease as perspiration -

Human miasm continues, Days, weeks and even months in a Garment -

It does not adhere to whitewashed walls or ground floors --

It adheres to wool and cotton -

Much aided by means of cold -

Manner they act.

1. In Arteries it produces Typhus -
2.
3.

4. It affects the Intestines with Dysentary.
It sometimes produces Influenza or Survey.
Ship & Jail Fever spread no more than 10 ft.

Lecture 41. Dec. 24 —

The matter producing Influenza is not contagious — Argued
1. From its rapid progress —
2. Its appearing in 2 or 3 places at once —
3. Individuals having no intercourse with those infected — —

Matters secreted in human Body are specific Contagions — —

The Lungs of still-born infants sink in water — — —

Hydrogen ~~Gas~~ mixing with the air we breathe sometimes destroys life —

Vapour emitted from some Springs produce disease —

It is said that Sulphur produced mental as well as bodily Disease —

Sensible qualities of Air —

Its Rarity has produced Hemorage from the Nose, and Languor & Pain.

Rarity & Density affect the Pulse —

The Sudden Diminution of the weight of the Air affects Sores —

Influence of air in Body.

Air passes from blood to Stomach

Air stimulates the heart more than blood.

Effects of Winds —

They induce Debility —

Storms hurry on parturition —

More rain in United States than Europe —

We have 9 months good weather & 3 bad —

& Europeans have 3 good & 9 bad ——

Winds by some are divided into 36 parts.

Lecture 42d Dec. 26. —

The Laws of Epidemics

Lecture 43d Dec. 27th

Epidemics —

No uniform Treatment can be attended to.
The qualities of air or Provisions cange the form of the Appearance. —
They have no regular succession —

Phenomina preceding or accompanying.

1. The Weather unusually hot, rainy, dry, calm.
2. Cattle very much diseased —
3. Cats will not fall on their feet as usual.
4. Birds disappear & flies die — These precedents.
5. Large swarms of Mosquetoes accompany Epidemics.
6. The Trees emit & unusual smell and the influence miasmata makes their leaves fall. —
7. The Pulse unceptionably preternaturally frequent.
8. There is a Disposition to sweat & fatigue —
9. Darwin says women more apt to miscarry.

These Phenomina appear in consequence of the air being impregnated with miasm.

Does this Constitution of the air indicate the arrival of a Ship importing some Disease?

This Constitution of the Air cannot be removed but the miasm exciting the Yellow Fever may be removed —

Be Students all your Lives — Notice Epidemics every Day, week, month & year — For confirmation I refer you to Dr. Sydenham —

Influence of Situation on health.

1. Contry is healthy according to cultivation — New, healthy — a well cultivated is also healthy —
Vapid vegitable Diet produces Dysentary
2. Cities are hot beds of Disease — Breathed air — nasty Docks & Sewers &c are very unhealthy —
Vegetables raised in Cities become putrid sooner than raised in Countries.
City water less healthy than River —
3. Mountainous countries more healthy — Tho' British Soldiers in Calcutta diseased.
4. Marshes near to Cities make them unhealthy — Miasm is conveyed 9 miles.
5. Air on Sea Shore unfriendly to Asma & pulmonary Consumption —
6. Cellars unhealthy — hospitals also —

Dwelling houses rendered unhealthy.

1. From unseasoned Timber —
2. Undried Stone walls —
3. Newly plaistered — 4. Newly painted
5. Cellar Doors close to Stair Cases —
6. A Chimney in Cellar make more healthy.
6. Water soaking into cellar unhealthy —
7. Smoky rooms — 8. Uncleanness —

9. Sinks & privies injudiciously constructed.
10. Unhealthy qualities of water — Roots of Lombardee poplars in bottom of wells.
11. Trees close to houses are very bad —
12. house too hot or too cold — Fewer Door & windows warmer in ~~Winter~~ and coolder in Summer — A country house should be close to ground —

A change of situation apt to produce Disease —

Emigrants are subject to fevers 2d year.

Moving from a place affected with miasmata to Town bring on fevers —

Old people moving from marshy to a high situation die soon —

Seamen approaching shore are affected with Catarrh — from mixture of sea & land air —

Lecture 44th Dec. 28th

Influence of food in prod. Disease.

1. Superabundance — 2. Deficiency —
3. Abstinance is a part of almost all Religions - but the Superstitious carry it to excess. Long abstinence produces an offensive & exceedingly acrimonious Breath.

Morbid effects of its qualities -

1. Animal Food -
   1. Fish - produces change of the Skin - foetid Sweat - Dyssentary - Scrophula -
   2. Old animals worse than young -
   3. Some parts of all animals same effect.
   4. Domestic, preferable to wild animals -
   5. An animal too much exercised before its is killed produces Disease —
2. Vegetable food -
   1. This produces universal Debility of Body & a weakness of mind —
   2. Dropsy
   3. Dyssentary
   4. Deficiency of venereal appetite -
   5.
   6.
   7. Lessens size of human Body — Putrid Eye Convulsions - Oats cutaneous affections and Green Chesnuts Debility of mind.

Lecture 45. Dec. 29th 1808

Some Observations out of place —

The Spleen communicates with Stomach not by the common lymphatics —

It is a wastegate to receive superfluous blood: & superfluous water from Stomach

Other Viscera are our Friends when we are in health but the Spleen when we are sick or in Adversity ——

Assume the Ob Subject.

Diseases from the Influence of Aliment & Drink from certain Circumstances —

1. Preparation — Should not be kept long before it is used — Overdone Oysters or half baked bread produce Colic ——

2. Unmasticated food

3. Too long intervals is hurtful —

4. Excessive quantity of food animal — this is apt to be taken after long abstinence or riding far in Stages ——

5. Sudden transition from vegetable to animal food — The gastric juice formed by vegetable will not dissolve animal food.

6. Improper mixture of Aliment

7. Too hot or too cold

8. Novelty — such as new Dishes of provision —

9. A disgusted Stomach retains a vindictive hatred against certain aliment.

Aliment has lain undigested in the Stomach three Days —

10. Food may be rendered unwholesome by cooking in unwholsome pots —

Iron best ware to Cook in —

11. Unclean Dishes is a source of Disease

12.

13. Some food is rendered unhealthy from the aliment the animal eat before killed.

Pheasants which eat laurel berries & pigeons which feed on pokeberries are unfit for food — the last brought on Diarrhea.

14. Fresh meet best in winter —

15. Idosyncracy — some things unhealthy on this account —

Diseases from Condiments —

1. Common Salt by itself — produces Scrophula

2. Vinegar — Dispepsia —

3. Pepper — Gastrodynia —

Patients deceive themselves most in the quality of their food —

4. Too much sugar — Dyspepsia.

Diseases from Drink —

1. Tea — produces Hysteria when too strong —

It also induces Gout in the Stomach and Bowels - and headache

Wine & Spirits produce arthritic Gout But Gout in general is produced by excess in Eating & Drinking & in the Exercise of the Faculties of the mind & especially from Drinking strong Tea

Diseases from Necessary Drinks

1. Water — Disease may proceed from its sensible qualities, its mixture with other hurtful liquids - or from taking to great a quantity at once

Cold water causes Epilepsy or Spasm in Stomach

Lone wine more apt to produce gout

A hot Iron put in Cyder qualifies it

Avoid ardent Spirits in Medicine

Lecture 4 P. December 30 –

Influence of Dress –

1. Its quantity – sometimes too light but seldom too much Clothes worn –
2. Its fashion – often too tight – tight Garters big knees –
3. Its quality – Flannel is healthy –

Dress produced by Disease –

Boots to conceal crooked legs –
Cravat to hide Scrophula –

Effects of Poison –

Poison of Viper produces Death only when in contact with Blood – some on all the System – some on parts –
Opium universal stimulus –

Obstructed perspiration arises from Moist air & damp feet.

Lecture 47. Mon. Jan. 2. 1809.—

The Passions —

Love wears off soonest after a Refusal — especially if positive. —

Case of a young man who died directly after gaining the Object of his wishes; an amiable young Wife — he killed himself —.

Anger useful in proper bounds —

Some die of Anger —

Grief often suspends motion; causes congestion &c.

Tears sometimes attend Grief; but not when very severe — As grief lessens people weep.

Passions worse for talking of their Objects.

Fear gives Strength —

Envy often very injurious to health —

Ambition attended with Diseases —

Avarice very baneful —

Effects of Venereal Appetite.

1. hurtful if indulged too early —
2. if in excess by old men —
3. breach of fidelity in Marriage —
4. hurtful by lustful Books & painting
5. Diseases often follow —

Lecture 48. January 3. 1809.

Diseases of Civilization affect all parts of the Body, especially the nerves. These Diseases may be divided into 3 Classes.

1. Labourers –
2. The middle Class of People &
3. Those in high Rank –

Government Divides into 1. Despotic
2. half Despotic – 3. Republican –

Slaves more difficult of Cure –
Despotic Subjects more irritability, less sensibility
There was not a Tory among the good Physicians in the Revolutionary war, but the bad ones were all Tories –
Religion is necessary to a physician –
He who denies Christianity may as well give up the principles of medicine.

Farmers & Carpenters most healthy –
Bakers subject to pulmonic Diseases –
Users of Lead to palsey – printers & miners –
Clergy subject to
Lawyers longest lived of any people –

Disease from Amusements –

1. These prevent sleep –
2. standing long before Glass & leaving off Clothes dispose to Disease –
3. Perspiration of a crowded assembly produces Catarrh —
4. Dance – disease from fatigue – aneurism, common catarrh – The Theatre disposes to nervous Diseases. –

Tragedies represent things superior to natural miseries – A mistress will be very much affected at Theatre & will go home & beat & abuse her servant shamefully without remorse —

5. Standing on head produces hydrocephalus.

Disease from Custom –

1. Drams in the morning —
2. Women receiving lying-in Visits –
3. Ringing Bells at Funerals –
4. general use of Tobacco –

From unhealthy Ancestors –

1. Congeniae – these children bring into the world with them – Venereal – Smallpox, Measles.
2. Hereditary – Consumption received from the Father & Madness from the Mother – Hemorrhoids Gout &c – Sore leg – hair lip —
3. Filial Diseases, these affect the Children & not parents of families – these depend on Sameness of Diet.

Lecture 49.th January 4th 1809.

Habitual use of medicines, as the frequent use of Opium, Venesection, & Cold bath, very hurtful. Pedeluvian hurtful in a State of Fever — Laudinum sometimes produces Colic, Dispnea and strangury —

Influence of Sympathy & Antipathy. Convulsions communicated by sympathy — In this way the methodists have Jerks — Stuttering also — & Cathphobia are the effect of Antipathy

Association of Ideas & Motions brings Epilepsy at regular periods —

Accidents —

Lifting by the hair — the ill effects have been experienced many years after —

Some cases in which Disease has not appeared under 6 weeks, 4 y. 8 & even 20 years —

Enquire into Stages of human Life.

1. Infancy — Infants are disposed to Disease from irritability of Stomach, Delicate Skin, worms, Disproportion between head & other parts, & particularly to Hydrocephilus internus —
2. Childhood — Disproportion is lessened —
3. Puberty — to febrile & pneumonic complaints,

to pains, Hypochondria, vitiated appetite, headache - Venereal Disease —

4. Adolescency & Manhood — to pulmonary complaints — headache — hemorrhoids. Arteries become more Dense —

Cannot cure patients while the arteries and veins are conflicting —

This conflict continues from 2 to 5 years —

Fewer die about 45 years of age —

Spectacles considered as part of Shroud — and getting up in the night — one Step to Grave. —

At 90 Arteries more excited while other parts decline —

This disposes to putrid inflamatory fever.

Old peoples fluids become acrid —

Death from old age arrises from the Excitability } being exhausted.

Lecture 50th January 5th

Big head & short neck cause of Disease.

Causes of Death. extracted from my history of animal Life.

1. The abstraction of Stimuli
2. Stimuli promoting too much action
3. Too much Relaxation
4. Error loci — 5. Poison —
6. Solution of Continuity —
7. Ossification of certain parts —

Just before Death the morbid excitement changes frequently to other parts. —

When to the mind it evolves a talent for poetry, music or prophecy —

Sometimes to passions — hence a Clergyman was heard to swear bitterly before he expired.

To Trachea & larynx — hence loud cries & shrieks

To Pharynx — hence excessive thirst

To Bowels — hence Diarrhea — (of urine.

To kidneys — hence great flow or suppression

— Muscles — hence convulsions & Palsy —

Arteries — hence frequent & active pulse

Lymphatics — Dropsy or Effusion of water.

Skin — profuse sweat & eruptions —

The Skin is sometimes cold before Death and warm afterward —

To Penis — hence Priapism

Sometimes Morbid action is stationary at others flies from post to post but at last must yield to Death —

This is more or less painful —

Sometimes stated at the point of Pleasure hence some die of the Gout & Yellow fever laughing.

No pain or pleasure in Death arises from exhausted sensibility —

When Respiration becomes voluntary there is great Danger — some hope while involuntary.

Cold commonly begins at toes & fingers, but when at the wrist no recovery —

When in the Lungs cold breath is perceived.

Death sometimes from Debility without Disease.

Anomolous Phenomina.

1. White Eyes. 2. heat after Death —
3. Yellow Skin — 4. A tear after Death —

All these Depend on Disease or Circumstances.

Life continues longer in some parts.

Order of Putrefaction —

1. Bowels — 2. Lungs — 3 Muscles — 4 Brains —

The hair and Bones remain longest —

The Body in an ordinary Depth dissolves in about four years —

The End of Pathology —

Lecture 51. January 5. th

While I am able I shall defend the Theory & when laid in the Grave Let my Epitaph be, He is a Believer in the Theory of Medicine — Therapeutics.

All medicine act by increasing or by diminishing impressions or exciting new.

Laws

1. There may be impressions without Sensation — hence Disease in Viscera without —
2. Impressions on one part sometimes produce pain in another —
3. Impressions excite Sensation in proportion to the Stimulus & State of Sensibility.
4. In proportion to Duration of impression.
5. There can be but one at a time.
6. Sensation continues after impression is removed.
7. Sensation is destroyed as the Sensibility is.
8. Feeble (pleasing) sensations conquer more powerfue ones — so with Epidemics —
9. Imagination & memory renew them —
10. More force is required in habitual Impressions to produce an equal Sensation —

Preliminary

The Powers of Nature Some suppose are under the Influence of Soul —

By Nature, I understand Physical necessity.
Sydenham says we must fight against nature by Remedies of are in cure of Diseases.
In health Nature is regular but not in Disease.
In Short Nature is like a drunken man.
In Hemorages use the lancet—
If a person affected with Boils, bring on an artificial Disease—
If Nature points to outlets, trust not to one.
In Fever with Diarrhea use Emetics—
Some Diseases should not be cured by art.
1. Rupture on Childhead nor 2d. the Piles without some vicarious Discharge — (to cure.
3. Intermittent inclined to madness - unsafe
4. Gout in Limbs
5. Rheumatism when succeeding madness —
6. Sores on Old peoples legs—
7. Ascites if long continued, not by tapping—
8. Habitual sweat of feet stopt, loss of teeth followed
9.
10. Gonorrhea, not checked suddenly—
Pains are sometimes necessary to life—
Time cures some Diseases —
To effect a Cure we should consider the Country — the County & even Village in which Disease prevails—

Lecture 52d. January 7th

Therapeutics

Preliminary Observations.

Diseases of cold & warm countrys require different treatment — same country changing heat & cold — Local Diseases — Different months & even years Disease treated different

Relative force of Disease

Nation predisposition and habit —

Egyptians are harder to purge —

In army or Navy this rule of Consequence.

Attend to appetite for food & Drink —

Consult individual predisposition of patients.

Many persons have some peculiarities —

Wine insufficient if habituated to Grog

Inquire after habitual Diseases as well & Hereditaries.

Whole families often have filial Diseases —

Age never overlooked —

Direct enquire 3 or 4 weeks back for remote Cause.

Debility from fatigue may be excited to Disease a month afterwards —

Intemperance in Eating & Drinking. Love Grief, Debt &c — they will not tell you —

More difficult to find out secret Drinking in women than in men —

Removal of Remote Cause is not always the curing of Disease Hydrocephalus.
Some injured by indulging Longing —
Observe state of system in longing —
But few Diseases that do not alternate with Intermissions or Exacerbations —
Propriety in changing medicines often.
Sun & moon &c influence patients —
℞. Uvaursi in Remission of Nephritis.
Medicines should not be laid aside too soon when apparently useless — —
Headache & pulmonary tendency may be palliated for years, till time cures it —
Pulmonia sometimes not cured by medicine, but patients may go to another Country.
Conversation has a good effect on some.
It has best effect in Chronic Disease —
Attend all cases whether curable or not.
Never give over a patient & desert him
Dispute every inch of Ground with Death —
Our success sumtimes depend on our doing nothing —
See your patients do not injure themselves.
If attached to medicine give inert substance.
Choice of MD
1. Have Respect to the price of Medicine.
never to poor prescribe costly medicines —
All Diseases may be cured by few medicines

if we observe the time & manner of giving them ——

Medicine like Roman Alphabet. Formerly it more resembled Chinese Character.

Faith has much Influence — So this Quacks owe much of their success —

Some Medicines best unmixed and others best compounded ——

Opium & alkali cure Tetanus, but not alone. Sugar assists in keeping medicine in Stomach Some Theqire correctives — must not go alone. Find out the effect of medicine by faithful Observation ——

Neatness & Cleanliness should be attended to ——

Consultations —

These are very useful — The novelty of

In all doubtful & dangerous Cases. When seldom Diseases appear — In desperate cases — new & popular medicines — Appeals to Court of justice are feared ——

Different practices may be hurtful when they are combined ——

Lecture 53d. January 9.

Take our patients out of their own hands — set a Centinel over them —

A Clergyman's converse & prayers useful.

A man should not be encouraged to make a will — It promotes approach of Death.

Some cases let not patient know medicine.

Encourage but never flatter a patient. —

Sugar of Lead cures Epilepsy in Infancy but not in adults ——

Necessary to persuade to take Medicine.

In Hemoptisis a blister cured a man. —

Effect of compounded medicine derived from experience ——

Observe the State of preternatural

1. Seat of Disease whether in Brain

Our knowledge of these 4 states depends

1. Recency of Disease { When they appear
2. Derived from experience { absent — suffocated.
3. on ~~operation~~ exhibition ~~from~~ of medicine —

Remedies Divided into

1. Sedatives
2. Stimulants — to diffuse equal excite.

Sedatives act Direct & indirect

1.

2. Cathartics, diuretics,

Blisters & Issues

Stimuli are medicines & aliments

These acts a

We ginerally find disease require sedatives-

1. Bloodletting

2. Cold — it acts by contracting muscles.

3. Fear - acts negatively

4. Abstinece - there is one disease in which necessary to abstain 2 or 3 days-

It is of more use in Chronic than acute disease —

5.

6. Darkness - acts by abstracting Light

7. Silence - by abstracting sound —

Excitement abstracted gradually -

1. Some medicines act on one part only -

2. Some act on all thro medium of one. Stomach influence on many other parts.

3. By acting on the Blood —

4. some medicines lose their qualities in blood.

5. some act upon sensibility while other act upon irritability —

6. Some act on the 7. Systems while others act on one 2 or 3 ——

7. Different Systems may have different actions

Indirect Sedatives -

1. Cathartics -

1.

2.

3. Drastic. compared to sweeps scraper.

These purges only proper when the system is greatly excited ——

8. In diseases from Plethora

9. by

10. In Dysentary Diarrhea - active purges -

11. In hemorhoids

12. In spasm

13. In Typhus Fever -

In use of Cathartics observe -

1. After a large dose less will act

2. Use them in creating artificial Diarrhea. confine them to chronic -

3. When long continued change them

6. Minor purges produce a sweat –
7. most useful in Disease of lower Bowels
8. When uterus or Bladder are oppressed –

Injections act by quality & quantity, never less than 1 pint – may use a quart.

A Days fasting good as a purge –

Lecture 54. Jan. 10th –

Emetics are usefull
Give Emetics in divided Doses. ½ gr. tartar
They act most easily in morning –
More useful in repeated Doses than one.
10 or 15 gr. of ipecacuanha every other Day in Diarrhea – They are forbidden

1
2
3 in advanced stage of yellow fever
4. – ——— ——— ——— Pregnancy –
5.

Next are Diaphoretics – Depleting –
Cold water produces sweat by reducing the capilary vessels to sweating point –
& by exciting system when below –
Nitre &c. excite sweat without Nausea.
Diluting Diaphoretics act by Distention
Purges check sweats when below the sweating point ———

Diaphoretics in all fevers that forbid bloodletting –
– Also indicated in Diseases of Bowels –
in Anasarca – in fevers inclining to sweat.

Rules relative to Diaphoretics
1. Lie in bed – 2. wear flannel – 3 eat six times a Day – 4 attend to heat of Body.
5. Cold sweat when above 108 – warm if below 6.
7. Change linnen often in such cases.
8. warm liquid – n
9. Check not sweat suddenly –
I believe they hurt in Typhus Fever – look only for a soft skin not moist –
They are forbidden

Diuretics as sedative – 1. cold air to warm body – 2. cold water – 3. descending into cellar.
4 – noise of stream of water –
Onions applied to pubis produce urine –
Diluting Diuretics

Such as act on kidneys – nephritic Stimuli.
1. Foxglove –
Debility induced by fasting has cured Dropsy.
Expectorants act by exhaling into the Lungs —
They are 1. Demulcents. 2. Nauseating medicines.
Blisters act as expectorants —

Sympathy – Lungs excited, skin relaxed – vice versa
Emenagogues – They should differ according as the affection is acute or chronic –
Syalagogues – 1. evacuative effects –
They discharge fluids in shape of Saliva.
Dr. Rush says Salivation is a natural Remedy –
Auxiliaries in salivation – 1. Bloodletting.
2. low Diet – Danger of Salivation is avoided by depleting Remedies – 3 Vomiting –
4. Doses of Opium – 5. Cold Bath – 6. mixture of Jalup – 7. nitre – 8 Calomel – 9.
Lastly – by leaving off calomel 2 or 3 weeks –
Salivation quickened by mercureal friction –
Indicated 1. In all
2.
3. in Diarrhea obstinate
4. Venereal.
5. in affections of kidneys –
6.
7. in Tetanus –

Forbidden 1. In highly excited state of fever
2. in a very low state impracticable
3. in Children under six years old –

Case of a boy salivated, threw cold water on him stop salivation & tetanus –

Lecture 55. Jan. 11th.

Blister – discharge serum from blood – they consist of what act slowly or quick – – slow – spanish flies – certain bark – – quick – hot water in cup –
– Apply them!

2. in local affection
3. in sudden attacks of disease

Rules of Application –
1. Let them remain till it raises –
2. blisters on head 24 hours because not rise
3. Apply fresh
4.
5. In malignant gangrenous fever apply to thigh or neck – they mortify on arm
Forbiden in 1. Diseases of great morbid action & in 2. too little morbid action –

At blistering point they discharge serum – above this pus – below

Improper in low state of Typhus fever.

In habits highly Irritable –

Issues – a continual blister –.
They are useful in chronic Diseases –
Indicated, in Gout – pulmonary Consumption.
in local congestions –
– in cutaneous humours –

In suffocated excitement the same remedies used in different manner

Cold water improper in absence of heat.

Diseases requiring Sedatives or Depletion left to nature expend excitability without removing the Stricture ——

Morbid action succeeds Debility & vice versa. By Depletting Remedies excitability increases — Stimulants — 1. Stimulants & 2. tonics — they are diffusible & durable — — —

Sedatives convert excitement into excitability — & Stimulants excitability to excitement.

Sugar of lead, Digitalis, certain poisons are like narcotinism — indirect sedatives — Opium may be added to these —

Stimulants should not be used in violent morbid action — it is like breaking hinges of a Door — Depletting Remedies best — as in Tetanus opium is useful —

If they bring on pain in bowels &c. the are used too soon — but if they increase fullness of pulse — it may be right. A Typhus pulse in pulmo. Con. is time to administer stimulants ——

Who will invent a machine to find out the State of System?

Manner of giving Stimulants —
Narcotics — not merely anodynes — useful
in promoting two or three days & nights sleep —
A large Dose of opium producing 12 hours
sleep carried off a Delirium —
The precise point must be attended to.
Vigilants — in cases where brain is much affected
I have seen patients in delirium of fever
worse for sleeping — Pt. 1. Erect posture
2. Conversation — 3 strong tea & coffee —
— ~~Remedies~~ Rules for exhibition
1. Reduce the system below morbid action
Sydenham depleted before stimulated —
Except. 1.
2. When excitability is dissipated — as tetanus
too much laudinum may be useless —
2. When little excitability begin with strong stim.
I urge large Doses & wish you to avoid small
doses, because they waste excitability —
In some cases — Manus de Officina —
3. Do not compine too many stimulants
at a time — some exceptions —
4. Use them in Rotation —
Vary the same class of Medicines as
well as the same medicine —
5. In Chronic Diseases omit all stimulants
for a certain time —
6. If disagreeable, leave it of gradually,
this is sign of doing good —
7. Change part of body to which applied. —